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ABSTRACT

The fourth annual research inventory describes 728 Mexican-related research projects being conducted in 1984 or to begin in 1985 in 14 countries. Data come from questionnaires sent during 1984 to more than 1,800 individual researchers and 650 institutions around the world. Each project description provides names and addresses of principal and co-principal investigators, project title and abstract, date begun and estimated completion date, funding sources, and project-generated publications. Research project descriptions are organized under 10 general subject headings: Mexican studies, Mexico and the world, border studies, Chicano studies, agricultural and forestry sciences, biological sciences, environmental studies, health studies, marine sciences, and physical sciences. Coverage of projects dealing with Mexican history, border studies, marine sciences, and Mexican international economic and political relations has been expanded in the present volume. New sections have been added on communication, economics, political economy, environmental studies, and forestry studies. Distribution by academic disciplines of research projects reported in the Inventory is represented in chart form. A subject index, index of researchers, index of organizations and institutions, and list of abbreviations and acronyms are provided. (LFL)

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THE INTERNATIONAL INVENTORY OF CURRENT MEXICO-RELATED RESEARCH is published annually by the Center for U.S.-Mexican Studies at the University of California, San Diego, in association with the University of California Consortium on Mexico and the United States (UC MEXUS). Volume 1 (spring 1982) of this publication was issued under the title *Current Research Inventory*.

Publication of Volume 4 is made possible, in part, by grants from the William and Flora Hewlett Foundation, the UC MEXUS Consortium, the Ford Foundation, and the Rockefeller Foundation.

Annual subscriptions (one volume per year) are available for libraries and other institutions, at $13.50 per year. Individuals who do not contribute abstracts of their research for publication in the *Inventory* can subscribe at a rate of $6.00 per year. (Researchers who do submit abstracts will receive single, complimentary copies of the volume in which their abstract is published. Additional copies can be purchased at $6.00 per copy, including postage and handling.) Checks should be made payable to *UC Regents*. Orders should be sent to: *Publications, Center for U.S.-Mexican Studies, D-010, University of California, San Diego, La Jolla, Calif. 92093, U.S.A.*

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Riverside, California

EDITORS' NOTE

This fourth volume of the *International Inventory of Current Mexico-Related Research* covers research ongoing at some time during 1984 or projected to begin in 1985. The data come from questionnaires sent during 1984 to more than 1,800 individual researchers and 650 research institutions around the world. This volume contains descriptions of 728 research projects (a 61 percent increase over last year's edition) being conducted in 14 different countries: Australia, Austria, Canada, Denmark, Egypt, France, the Federal Republic of Germany, Mexico, Nigeria, Peru, the Republic of South Africa, Sweden, the United Kingdom, and the United States.

Coverage of projects dealing with Mexican history, border studies, marine sciences, and Mexico's international economic and political relations has been greatly expanded in the present volume. We have also added new sections on communications, economics, political economy, environmental studies, and forestry studies. The research projects abstracted in this volume are organized under the following subject headings:

Mexican Studies (339 projects)
  Agricultural studies (27 projects)
  Anthropology (31 projects)
  Archaeology (8 projects)
  Communications (8 projects)
  Economics (15 projects)
  Education (21 projects)
  History (93 projects)
  Literature and the arts (31 projects)
  Political economy (33 projects)
  Political science (24 projects)
  Sociology and demography (34 projects)
  Urban studies (14 projects)

Mexico and the World (88 projects)
  International economic relations (27 projects)
  International labor migration (36 projects)
  International policy and political relations (20 projects)
  Other studies in international relations (5 projects)

Border Studies (88 projects)

Chicano Studies (43 projects)

Agricultural and Forestry Sciences (33 projects)

Biological Sciences (36 projects)

Environmental Studies (17 projects)

Health Studies (36 projects)

Marine Sciences (39 projects)

Physical Sciences (9 projects)

The diversity of research topics and academic disciplines represented in the *Inventory* continues to increase. The distribution of researchers contributing to this volume by discipline is as follows:

Accounting, 1
Agricultural Science, 17
Anthropology, 90
Archaeology, 5
Architecture, 2
Art History, 7
Biology, 52
Botany, 5
Business Administration, 3
Chemistry, 16
Communications, 2
Demography, 7
Ecology, 16
Economics, 125
Education, 16
Engineering, 5
Entomology, 13
Environmental Science, 11
Forestry Studies, 15
Genetics, 7
Geography, 15
Geology, 2
Geophysics, 1
History, 145
Journalism, 2
Languages and Literature, 49
Law, 3
Library Science, 5
Linguistics, 6
Mathematics, 2
Medicine, 38
Music, 5
Nutrition and Food Science, 10
Oceanography and Marine Science, 60
Philosophy, 11
Political Science, 72
Psychology, 25
Public Administration, 6
Public Health, 5
Regional Studies, 7
Social Science, 14
Sociology, 147
Theater, 1
Urban Studies, 16
Veterinary Science, 9
Zoology, 5

We gratefully acknowledge the assistance of the Scripps Institution of Oceanography at the University of California, San Diego in increasing our coverage of Mexico-related research in marine science.

We are pleased to report that, beginning with volume 5 (to be published in March 1986), the *Inventory* will be a joint publication of the Center for U.S.-Mexican Studies at UC-San Diego and the Centro de Estudios Fronterizos del Norte de México (CEFNOMEX) in Tijuana, Baja California. Under a collaborative agreement between the two centers signed on December 11, 1984, the UC *International Inventory* will be merged with the *Directorio General de Investigadores en Estudios Fronterizos México-Estados Unidos*, which has been published since 1982 by CEFNOMEX. The combined inventory of current research will have a bilingual format, with each project described in both Spanish and English.

We expect this collaborative effort to increase coverage of research being done on both sides of the border, to expand utilization of the inventory by non-academic persons who are not bilingual, and to reduce the burden of cooperation on contributing researchers, many of whom have been filling out two separate questionnaires on their research for the CEFNOMEX and UC inventories. In a more general sense, the joint research inventory represents a major step forward in expanding and institutionalizing the flow of information between the research communities of Mexico and the United States.

We invite researchers throughout the world to submit abstracts of their Mexico-related research for publication in the 1986 volume. Questionnaires will be mailed to all contributors to the present volume on September 1, 1985. Others may request questionnaires (one for each research project, either underway or recently completed) from: *International Research Inventory*, Center for U.S.-Mexican Studies, D-010, University of California-San Diego, La Jolla, Calif. 92093, U.S.A.

Finally, we wish to express our gratitude to the William and Flora Hewlett Foundation, the University of California Consortium on Mexico and the United States, the Ford Foundation, and the Rockefeller Foundation, whose financial support has made possible the publication of the *International Inventory*.

Ricardo A. Anzaldúa Montoya
Wayne A. Cornelius

December 1984

GUIDE TO USING THE INVENTORY

Project number

Principal investigator
Multiple daggers indicate co-principal investigators

383. ‡Maria Patricia Fernández-Kelly (Center for U.S.-Mexican Studies, D-010, UCSD, La Jolla, CA 92093), Robert Bach (Dept. of Sociology, SUNY-Binghamton, Binghamton, NY 13901), Patricia Pessar (New York Research Program in Inter-American Affairs, Center for Latin American and Caribbean Studies, New York, NY 10003), Helen I. Safa (Center for Latin American Studies, University of Florida, Gainesville, FL 32604), Saskia Sassen-Koob (Dept. of Sociology, Queens College, CUNY, New York, NY 10003)

Project title

Hispanic Women in the Garment and Electronics Industries

Project description

This study will examine the restructuring of industry in the United States as a response to the internationalization of production and will explore the relationship of these phenomena to the insertion of Hispanic women into the labor force. As examples of this process the researchers have chosen the garment and electronics industries in the New York metropolitan area, greater Miami, and greater Los Angeles. These three locations, which have the fastest-growing Hispanic populations in this country, offer a wide spectrum of alternatives for the development of industry and illustrate variations in the structure of labor markets, ethnic composition, and characteristics of immigrants. Of central significance for this study's focus on women, both industries chosen for the research rely predominantly on women as direct production workers. Despite the now extensive literature on migration in the three areas, no systematic comparative analysis has addressed the incorporation of Hispanic women into these labor markets, nor has any study provided a general explanation of their role in the reorganization of industry. The researchers will analyze secondary source materials, as well as survey and ethnographic information on a sample of firms and their workers.

Estimated date of completion (or completion date)

Funding sources

Begun Aug. 1984. EDC Aug. 1987. Revson Foundation/Ford Foundation/Tinker Foundation/Univ. of Florida/Center for U.S.-Mexican Studies, UCSD. Publications: M. P. Fernández-Kelly, *For We Are Sold, I and My People: Women and Industry in Mexico's Frontier* (Albany, N.Y.: SUNY Press, 1983); J. Nash and M. P. Fernández-Kelly, *Women, Men, and the International Division of Labor* (Albany, N.Y.: SUNY Press, 1983).

As a matter of convention, in the section of the entry dealing with publications the editors have not listed names of authors when they are the same as the individuals listed as researchers. When authors are listed before the title of a publication and subsequent titles list no authors, the citation implies a repetition of the authors listed for the preceding publication (as with the bibliographic convention *idem*.).

This study would be located in the Index of Subjects under the following terms: Chicanos, Hispanics, Labor markets, Migration, international, Sociology, Women, and the geographic descriptors California, Florida, and New York.

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LIST OF ABBREVIATIONS AND ACRONYMS

This partial listing of abbreviations and acronyms does not include the following: United States Postal Service and dictionary abbreviations of U.S. states; abbreviations of months; accepted Latin abbreviations, such as e.g., etc.; and abbreviations or acronyms which appear in a single abstract and are defined therein.

A.D.	Anno domini
ADC	Advanced developing country
AGN	Archivo General de la Nación
AMEP	Asociación Mexicana de Población
ANUIES	Asociación Nacional de Universidades e Institutos de Enseñanza Superior
A.P.	Apartado postal
ASA	American Sociological Association
BANAMEX	Banco Nacional de México
BANRURAL	Banco Nacional de Crédito Rural
B.C.N.	Baja California Norte
B.C.S.	Baja California Sur
Bldg.	Building
CalCOFI	California Cooperative Fisheries Investigations
Calz.	Calzada
CCNY	City College of New York
Cd.	Ciudad
CECODES	Centro de Ecodesarrollo
CEDDU	Centro de Estudios Demográficos y de Desarrollo Urbano
CEE	Centro de Estudios Económicos
CEESTEM	Centro de Estudios Económicos y Sociales del Tercer Mundo
CEFNOMEX	Centro de Estudios Fronterizos del Norte de México
CEH	Centro de Estudios Históricos
CEI	Centro de Estudios Internacionales
CES	Centro de Estudios Sociológicos
Chih.	Chihuahua
Chis.	Chiapas
CIB	Centro de Investigaciones Biológicas
CIBCASIO	Centers of Investigation of Baja California and the Scripps Institution of Oceanography
CICESE	Centro de Investigación Científica y Educación Superior de Ensenada

CICIMAR	Centro Interdisciplinario de Ciencias de Mar
CIDE	Centro de Investigación y Docencia Económicas
CIES	Centro de Investigaciones Ecológicas del Sureste
CIESAS	Centro de Investigaciones y Estudios Sociales en Antropología Social
CIFGO	Centro de Investigaciones Forestales del Golfo
CIFO	Centro de Investigaciones Forestales del Occidente
CIFPAS	Centro de Investigaciones Forestales del Pacífico
CIH	Centro de Investigaciones Históricas
CIHEAM	Centre International de Hautes Etudes Agronomiques Méditerranéennes
CIHS	Centro de Investigación Histórica y Social
CIIS	Centro de Investigación para la Integración Social
CNIPF	Centro Nacional de Investigaciones sobre Productos Forestales
CNRS	Centre National de la Recherche Scientifique
CONACYT	Consejo Nacional de Ciencia y Tecnología
CONAPO	Consejo Nacional de Población
CONASUPO	Compañía Nacional de Subsistencias Populares
CONDUMEX	Conductores Mexicanos
CSRC	Chicano Studies Research Center
CSU	California State University
C.U.	Ciudad Universitaria
CUNY	City University of New York
Del.	Delegación
Dept.	Department
D.F.	Distrito Federal
DGEI	Dirección General de Educación Indigena
DOE	Department of Education
Dpto.	Departamento
DRSW	Documentary Relations of the Southwest
EDC	Estimated date of completion
ENEP	Escuela Nacional de Estudios Profesionales
EPA	Environmental Protection Agency
FAO	Food and Agricultural Organization
Fracc.	Fraccionamiento
FSI	Foreign Service Institute
GSAUP	Graduate School of Architecture and Urban Planning
Gto.	Guanajuato
Gue.	Guerrero
IAF	Inter-American Foundation
IAMM	Institut Agronomique Méditerranéen de Montpellier
IBWC	International Boundary and Water Commission
ICML	Instituto de Ciencias del Mar y Limnología
IDB	Inter-American Development Bank

IDRC	International Development Research Centre
IECA	Instituto de Estudios Centroamericanos
IEEU	Instituto de Estudios Estadounidenses
IES	Instituto de Estudios Sociales
IIE	Instituto de Investigaciones Económicas
IIES	Instituto de Investigaciones Económicas y Sociales
IIH	Instituto de Investigaciones Históricas
IIS	Instituto de Investigaciones Sociales
ILAS	Institute of Latin American Studies
IMF	International Monetary Fund
INAH	Instituto Nacional de Antropología e Historia
INEA	Instituto Nacional de la Educación para los Adultos
INIF	Instituto Nacional de Investigaciones Forestales
INIREB	Instituto Nacional de Investigación sobre Recursos Bióticos
INMECAFE	Instituto Mexicano del Café
INP	Instituto Nacional de la Pesca
INRA	Institut National de la Recherche Agronomique
INS	Immigration and Naturalization Service
ISMR	International Society of Mesoamerica Research
Jal.	Jalisco
LDC	Less-developed country
LEI	Laboratoire d'Economie Internationale
LIDER	Laboratorio de Investigación sobre el Desarrollo Económico Regional
MDC	More-developed country
Méx.	México (state)
Mich.	Michoacán
MRE-Coop.	Ministère des Relations Extérieures, Service de la Coopération et du Développement
NEA	National Endowment for the Arts
NEH	National Endowment for the Humanities
NIC	Newly industrializing country
NIE	National Institute of Education
NifTAL	Nitrogen Fixation for Tropical Agricultural Legumes
NIH	National Institute of Health
NIMH	National Institute of Mental Health
N.L.	Nuevo León
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NRC	National Research Council
NSF	National Science Foundation
OAS	Organization of American States
Oax.	Oaxaca
ODC	Overseas Development Council
ONR	Office of Naval Research
PECA	Programa de Estudios Centroamericanos

PRM	Partido Revolucionario Mexicano
PROFMEX	Consortium of U.S. Research Programs for Mexico
PSC	Professional Staff Congress
Pue.	Puebla
Rm.	Room
SARH	Secretaría de Agricultura y Recursos Hidraúlicos
SCCR	Stanford Center for Chicano Research
SDSU	San Diego State University
SEA	Science and Education Administration
SEP	Secretaría de Educación Pública
SHCP	Secretaría de Hacienda y Crédito Público
Sin.	Sinaloa
SIO	Scripps Institution of Oceanography
SMSA	Standard Metropolitan Statistical Area
Son.	Sonora
SPP	Secretaría de Programación y Presupuesto
SSHRC	Social Sciences and Humanities Research Council
SSRC	Social Science Research Council
STPS	Secretaría del Trabajo y Previsión Social
SUNY	State University of New York
Tamps.	Tamaulipas
Tlax.	Tlaxcala
UABC	Universidad Autónoma de Baja California
UABCS	Universidad Autónoma de Baja California Sur
UAM	Universidad Autónoma Metropolitana
UC	University of California
UCB	University of California, Berkeley
UCD	University of California, Davis
UCI	University of California, Irvine
UCLA	University of California, Los Angeles
UC MEXUS	University of California Consortium on Mexico and the United States
UCPEET	Unidad Coordinadora de Políticas, Estudios y Estadísticas del Trabajo
UCR	University of California, Riverside
UCSB	University of California, Santa Barbara
UCSC	University of California, Santa Cruz
UCSD	University of California, San Diego
U.K.	United Kingdom
UNAM	Universidad Nacional Autónoma de México
Univ.	Universidad, University
UNM	University of New Mexico
U.S.	United States
USAID	United States Agency for International Development
USD	University of San Diego
USDA	United States Department of Agriculture
USGS	United States Geological Survey
USICA	United States International Communications Agency
UT	University of Texas

UTEP	University of Texas at El Paso
UV	Universidad Veracruzana
UW	University of Wisconsin
Ver.	Veracruz
WHO	World Health Organization
Yuc.	Yucatán
Zac.	Zacatecas

I

MEXICAN STUDIES

Agricultural Studies

001. ‡Miguel A. Altieri (Division of Biological Control, UCB, Albany, CA 94706), John Farrell (Dept. of Forestry and Resource Management, UCB, Berkeley, CA 94720), Javier Trujillo (Dirección General de Sanidad Vegetal, SARH, Humantla, Tlax.)
An Agroecological Survey of Traditional Subsistence Farming in Tlaxcala

This study is directed towards revealing the biological relationships and cropping designs of intensive subsistence-farming systems. It has given special emphasis to agroforestry systems in which the concurrent production of crops and forest and/or fruit trees enhances the multiple use of agricultural resources. These systems, still prevalent in the state of Tlaxcala, are based on intrinsic ecological lore, and many of them manifest a high degree of biological stability. Through a survey, this study attempts to explain the structure, function, and management of these systems while taking into account the socioeconomic and political framework within which they operate.

Begun June 1982. Completed 1984. SARH/Center for Latin American Studies, UCB.

002. Kirsten Appendini (CEE, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
Basic Food Production in Mexico: Peasant Agriculture

An increase in Mexico's food production must focus on peasant producers. This research examines peasant corn producers, their production process, and their market participation, as well as how agricultural policy affects them. Focusing on peasant producers as suppliers of cheap food, the study will analyze corn production from 1960 to 1983 and will formulate a typology of corn producers which identifies characteristics and relationships among factors such as material resources, the production process, costs, gain or repayment on family labor, and marketing. The researcher will draw data from national and regional statistics on corn production compiled by the Dirección General de Economía Agrícola and the Banco Nacional de Crédito Rural.

Begun Jan. 1983. EDC Dec. 1984. El Colegio de México. Publication: K. Appendini, M. L. P. Martínez, V. A. Salles, and T. Rendón, *El campesinado en México: dos perspectivas de análisis* (México, D.F.: El Colegio de México, 1983).

003. Nicole S. Ballenger (Latin America Branch, USDA, 500 12th St. S.W., Washington, DC 20250)
Agricultural Supply in Mexico

In this study, the researcher will utilize econometric techniques to produce a model for estimating the supply response of Mexico's principal crops to price changes and to land expansion. The model will assist in analyzing changes in Mexican price policy and in forecasting agricultural supply. Irrigated crop production will be separated from dryland crop production in order to assess implications for Mexico's irrigation policy. The study draws primarily from Mexican data on prices, yields, and harvested areas published by the Secretaría de Agricultura y Recursos Hidráulicos.

Begun Sept. 1984. EDC Dec. 1984. USDA.

004. Nicole S. Ballenger (Latin America Branch, USDA, 500 12th St. S.W., Washington, DC 20250)
Political and Economic Analysis of Mexican Grain Imports

This study will analyze Mexican grain imports and attempt to identify economic and political factors which may influence future U.S.-Mexican agricultural trade. The role of the state's staple commodities marketing agency, CONASUPO, will be a major focus. The researcher seeks to determine to what extent Mexican grain imports reflect market demand and supply, financial and foreign exchange constraints, or the objectives of Mexican policymakers and agencies, including CONASUPO.

Begun Oct. 1984. EDC Sept. 1985. USDA.

005. ‡David Barkin, ‡Blanca Suárez (CECODES, Altadena 8, Col. Nápoles, México, D.F. 03810)
Mexico's Hog-raising Complex

One element of a global study of changes in Mexico's structure of agricultural production, this research examines the links between the rapid expansion of hog raising and technological advances in this sector's productive process. These changes, in turn, influence the organization of labor and production systems, accelerating modernization in hog-raising areas. The researchers believe that a process of international development has spread techniques and technologies of animal protein production throughout the world, giving rise to the phenomena observed in Mexico's hog-raising sector. Among those phenomena are notable changes in the feeding and handling of livestock and in the meat-processing industry.

Begun Sept. 1983. EDC Mar. 1985. CECODES. Publications: *El fin de la autosuficiencia alimentaria* (México, D.F.: Nueva Imagen, 1982); *El fin del principio* (México, D.F.: Editorial Océano, 1983).

006. ‡Jeffery T. Brannon (Dept. of Economics and Finance, UTEP, El Paso, TX 79968), Eric N. Baklanoff (Dept. of Economics, Univ. of Alabama, University, AL 35486)

Agrarian Reform and Public Enterprise in Yucatán: The Political Economy of Mexico's Henequen Industry

This study evaluates the Mexican government's growing intrusion into the state of Yucatán since the agrarian reform of the 1930s. Using Mexican data, the study focuses on the relationship between government-induced changes in the organization of production and the incentive structure on the one hand, and industry performance on the other. An analysis of the state's recent diversification efforts, including the supporting role of the federal government, concludes the study.

Begun Jan. 1982. EDC Dec. 1984. Univ. of Alabama. Publication: "The Political Economy of Agrarian Reform in Yucatán, Mexico," *World Development*, Nov.-Dec. 1984.

007. Peter Edward Coy (Dept. of Sociology, Univ. of Stirling, Stirling FK9 4LA, Scotland)

Price Setting in the Rural Market

The current violent inflation of Mexico's economy and the devaluation of the peso have destabilized the price system in the food market. How do peasants cope with having to pay more money for tomorrow's candles than they obtained today for vegetables, corn, and flowers? Do they widen the haggling parameters, spend money more quickly, or what? This project attempted to disclose the mechanisms involved through participant observation.

Begun Oct. 1983. Completed 1984.

008. Clifton V. Dixon (Dept. of Geography, Texas A&M Univ., College Station, TX 77843)

The Cultural Zoogeography of Beekeeping in Northwestern Mesoamerica

In northwestern Mesoamerica, beekeeping and the selling of honey may be a profitable alternative to mono-agricultural activities for generating cash resources. This project involves an examination of beekeeping among the campesinos *(tlapaneco, mixteco, nahua,* and *latino)* of the Río Balsas basin of Mexico. The researcher will address issues regarding the role of beekeeping in the subsistence system, such as its incorporation in the production of foodstuffs, medicinals, alcoholic raw materials, and trade items, as well as its contribution to plant pollination. The study will also assess the complementarity of beekeeping to the subsistence system by analyzing its relationship to crop productivity, its calendrical position in the agricultural year, its position in the economic cycle, its time input-caloric output ratio, its extra market value, and other features of the activity. Finally, the researcher will examine the techniques and methods of beekeeping. The study involves collecting ethnographic data on agroeconomic activities for one agricultural year and identifying important bee forage plants through pollen analysis. Because the area contains vestiges of pre-Columbian systems of keeping stingless bees (*Trigona* spp. and *Melipona* spp.), the researcher is also conducting a comparative study between such systems and modern strategies for keeping honeybees *(Apis melifera)* in order to examine the process of culture change.

Begun Aug. 1984. EDC Dec. 1985.

009. Peter T. Ewell (Centro Internacional de la Papa, A.P. 5969, Lima, Perú)

Intensification of Peasant Agriculture in Yucatán

Yucatán, a semiarid, waterless, and forested plain, is marginal for conventional forms of agricultural development. Small Maya peasant communities using the traditional slash-and-burn milpa system account for almost all of the area's food production. This study focuses on one region in the South where, over the past 40 years, several thousand Maya families cultivating small, irrigated parcels have gradually shifted into the production of fruits and vegetables for the regional market. Their agricultural operations are designed to maintain the stability of the household and are planted with a variety of annual, semi-perennial, and perennial crops in various combinations and sequences. They are derived from traditional systems, both the milpa and backyard tree gardens. The study contrasts their development and the logic of their management to several government attempts to introduce modern fruit production systems, which have had a poor record of success.

Begun Sept. 1980. Completed 1984. Title XII/Scott Paper Co. Publications: "Intensification of Peasant Agriculture in Yucatán," International Agricultural Economics Study, A.E. Research #84-4 (Ithaca, N.Y.: Cornell Univ., 1984); P. T. Ewell and D. M. Sands, "The Milpa and Its Alternatives in the Maya and Peasant Economy of Yucatán," in *Farming Systems*, eds. B. L. Turner and S. Brush (New York: Guilford Press, forthcoming).

010. ‡Juan Antonio Leos-Rodríguez (Dpto. de Economía Agrícola, Univ. Autónoma de Chapingo, Méx. 56230), Alain de Janvry (Dept. of Agriculture and Resource Economics, UCB, Berkeley, CA 94720)

Surplus Transfers and the Terms of Trade in Mexican Agriculture

This study attempts to analyze and discuss the evolution through time of the terms of trade for the Mexican agricultural sector and their impact on the internal dynamics of that sector. It also analyzes the role of the Mexican state in implementing and enforcing the various agricultural policies that have created the present agrarian structure and have determined the bias of the agricultural terms of trade. The researchers evaluate resource transfers by using an input-output framework and four matrices for the Mexican economy (1950, 1960, 1970, and 1975). The second part of the study analyzes how movements in the terms of trade have affected the "dualistic" Mexican agrarian structure. That is, it indicates that the different mechanisms of resource transfer have affected the various rural social classes in very specific ways.

Begun July 1980. Completed 1984.

011. ‡François Lerin (IAMM, 3191 Route de Mende, 34060 Montpellier Cedex, France), ‡Laurence Tubiana (LEI, INRA, 3191 Route de Mende, 34060 Montpellier Cedex, France)
Research Laboratory on Regional Economic Development (LIDER)

This program aims to produce the economic analysis in a global and interdisciplinary examination of contraints on local and national agricultural policy and on the evolution of agricultural production systems in the Coatepec-Xalapa region of central Veracruz from 1970 to the present. The research focuses on determining which groups of agriculturalists are the most dynamic in terms of modernizing the cultivation of coffee and other crops.

Begun June 1983. EDC 1986. INIREB/MRE Coop./CIHEAM/INRA. Publications: "Intentions et contraintes de la politique agricole mexicaine: I," *Problèmes d'Amérique Latine* 57 (July 1980); "Intentions et contraintes de la politique agricole mexicaine: II," *Problèmes d'Amérique Latine* 70 (1983).

012. ‡Thierry André Linck, Jean Damien De Surgy, Rocío Martínez (Centro de Estudios Rurales, Av. Madero Sur 71, El Colegio de Michoacán, Zamora, Mich. 59600)
Agricultural Landscapes in Michoacán

This research effort attempts to differentiate between regions within Michoacán by comparing agriculture in rain-fed areas with that of areas undergoing the process of modernization. The study encompasses indepth analyses of the factors of change and integration, such as mechanization, emigration, agropolitics, expansion of commercial fruit cultivation, highways and other means of transportation, diffusion of technological change, rural development planning and decentralization, etc. The study will produce an inventory of the diverse agricultural forms in Michoacán and will address the factors of change operating within them.

Begun June 1983. EDC indefinite. Science Center, French Embassy. Publications: "Estrategias campesinas y agropolítica," *Relaciones* (Zamora, Mich.) 9 (1982); "La tractorización del secano," mimeographed (Zamora, Mich.: El Colegio de Michoacán, 1983); "Las fuerzas vivas del Bajío seco, los campesinos de Aguanuato," mimeographed (Zamora, Mich.: El Colegio de Michoacán, 1984).

013. Héctor-Luis Morales (Center for U.S.-Mexican Studies, D-010, UCSD, La Jolla, CA 92093)
Incorporating Traditional Technologies for Food Production in Rural Development Strategies

Food production strategies in Latin America tend principally toward the modernization of productive systems. However, the traditional rural economy has remained important as a supplier of grains, meat, fruits, vegetables, and even certain export products. Moreover, many pre-Hispanic or colonial agricultural practices still followed in Latin America permit intensive land use for mixed-crop yields, while requiring little in capital or other outside resources. Being labor intensive, these practices also provide additional jobs in the countryside. This research project will review previous studies of traditional food production technologies, especially integrated systems which combine crops, livestock, and aquatic resources while relying heavily on the recycling of waste products and other organic materials. Additionally, it will examine the *chinampa* system of agriculture practiced in the Valley of Mexico, describe integrated farming systems, analyze rural development needs, and make recommendations for future projects.

Begun Sept. 1984. EDC Jan. 1985. Center for U.S.-Mexican Studies, UCSD/IAF/INIREB. Publication: "Chinampas and Integrated Farms: Learning from the Rural Traditional Experience," in *Ecology in Practice*, eds. DiCastri et al. (Dublin: Tycooly International Publishing, 1983).

014. ‡Salomón Nahmad Sitton, Julio Gómez (CECODES, Altadena 8, Col. Nápoles, México, D.F. 03810)
Traditional Technologies of Indigenous Populations and the Preservation of Natural Resources

This research project seeks to consolidate all information available on traditional technologies employed by indigenous Mexican communities in cultivation, livestock raising, and exploitation of woodland and water resources — as well as on strategies which work to preserve the ecological balance in these areas and assure a stable supply of natural resources.

Begun May 1984. EDC Dec. 1985. CECODES. Publications: "Cultura indígena e identidad nacional" (Paper presented at the Foro Nacional de Consulta para la Planeación Democrática, Feb. 1983); "Los derechos humanos de las poblaciones indígenas y la legislación indigenista en México" (Paper prepared for the Instituto Interamericano de Derechos Humanos, 1984).

015. ‡Eduardo Ocampo Sánchez, ‡Francisco Rojas López (Escuela Superior de Contaduría y Administración, Calz. del Sauz esq. con Nicaragua, Univ. de Guanajuato, Celaya, Gto. 38040)
Transnational Investments and Agriculture in the Bajío of Guanajuato

This study examines the relationship among administrative methods; agricultural production control techniques employed by transnational companies; the consumption patterns, organizational forms, and migratory situation of peasants; and advances in community development effected by governmental and private entities. Fieldwork in two communities in Celaya has focused on the objectives and consequences of community transformations, in particular the resulting disarticulation of peasant movements and demands, and peasant decisions to emigrate.

Begun Aug. 1979. EDC Apr. 1985.

016. Javier Orozco Alvarado (Facultad de Economía, Edif. F, Núcleo Los Belenes, Univ. de Guadalajara, Guadalajara, Jal. 44270)
Problems of Technological Development in Areas of Rain-fed Agriculture

This research examines the impact of technological advances, taking into account the socioeconomic problems generated by the uneven application of technological innovations and the problems which appear in the drive to integrate rural regions with the national plan for agricultural development. The central hypothesis states that the level of technological development in specific agrarian structures relates directly to these structures' ecological, geographical, political, socioeconomic, and historical conditions. As a result, technology has a differential impact on the social and economic relations prevailing in various agricultural regions. The researcher's study of three rural communities draws on census and survey data, participant observation, interviews, archives, and a review of the literature.

Begun Mar. 1984. EDC Sept. 1985. Facultad de Economía, Univ. de Guadalajara. Publications: "Consideraciones sobre la insuficiencia alimentaria," *CEPES* 2 (1983); "Crisis agrícola y desequilibrio regional en Jalisco," in *Anuario de Investigación 1983* (Guadalajara: Univ. de Guadalajara, 1983); "El estado y la situación actual de la agricultura de temporal" (Guadalajara: El Colegio de Jalisco, forthcoming).

017. David Peacock (Latin America Branch, USDA, 500 12th St. S.W., Washington, DC 20250)
A Grains-Oilseeds-Livestock Model for Mexico

This study involves the development of a model showing demand, supply, and net trade for Mexico's grain, oilseed, and livestock sectors. This model will form part of a world model of grain, oilseed, and livestock trade (GOL) developed at the U.S. Dept. of Agriculture.

Begun Oct. 1984. EDC Sept. 1985. USDA.

018. Leo F. Pozo-Ledezma (Office of International Affairs, U.S. Dept. of Housing and Urban Development, Washington, DC 20410)
Land Use in Mexico

This study will describe historical patterns of land tenure in Mexico, as well as the sociopolitical frameworks that led to or supported them. It will also examine efforts to resolve land-tenure problems, from Aztec land allocation policies to current legislation on ejidos and sectoral development plans (such as housing and urban development plans) that deal with and affect land use. Using official Mexican publications as his principal source, the researcher plans to analyze Mexico's major problems of urban and rural land use and to assess the prospects for their resolution under current policies, keeping in mind the country's projected demographic growth and its pattern of policy implementation.

Begun Jan. 1983. Ongoing. Publication: "Land Use in Mexico," in *International Handbook on Land Use*, ed. Nicholas Patricios (Westport, Conn.: Greenwood Press, forthcoming).

019. Michael R. Redclift (Institute of Latin American Studies, Univ. of London, 31 Tavistock Square, London WC1, England)
Competition for Rural Resources:
***Fraccionamiento* Development in Morelos**

The project investigates the effect of land development in Morelos on agriculture and natural resource endowments, focusing especially on ejido farmers who work land close to *fraccionamiento* (urban, middle-class housing) development. The researcher is collecting data on: the scale and number of *fraccionamiento* developments; the mechanisms through which *fraccionamiento* developments are established, their legality, their relationship to planning regulations, etc.; and the effects of this development on local agricultural employment in Morelos.

Begun June 1983. EDC June 1985. The Leverhulme Trust.

020. Sergio Reséndiz Torres (Centro de Estudios Rurales, Av. Madero 71, El Colegio de Michoacán, Zamora, Mich. 59600)
Livestock in Western Michoacán, 1930-1980

This research attempts to describe and analyze the socioeconomic forces which shaped the dairy and livestock industry in western Michoacán. It also seeks to show how the dairy industry relates to the specific ecological features of the area and to its historical development, which dates from the haciendas of the 17th century and has been traditionally linked to patterns of land tenure. Historical sources reveal the basic evolution of this industry's production and marketing techniques over time; the researcher has obtained current information from surveys, interviews, and government agencies.

Begun Jan. 1984. EDC Feb. 1985. CONACYT.

021. ‡Iván Restrepo Fernández, Susana Franco, Wendy Wilkins (CECODES, Altadena 8, Col. Nápoles, México, D.F. 03810)
Pesticides in Mexico

Mexico's need to increase agricultural output to satisfy increasing food demands has led to the widespread adoption of "green revolution" technology in the agricultural sector, including an increased use of pesticides. This project will analyze the negative impacts of this practice on the environment, the productive process, and the population. As its key components, this research will attempt to determine the actual use level of such products by Mexican peasants; to formulate methods for stricter control in order to decrease environmental dangers; and to offer a strategy for restraining the uncontrolled and irrational competition now prevailing among the firms which manufacture these substances. The project will also study alternative, integrated methods for pest control through rational management of the ecosystem (biological control), methods already employed by traditional agriculturalists in many areas of the country.

Begun Jan. 1983. EDC Dec. 1984. Mexican government.

022. Luis Miguel Rionda Ramírez (Centro de Estudios Antropológicos, El Colegio de Michoacán, Av. Morelos Sur 122, Zamora, Mich. 59600)
Agriculture and Migration: The Ejido of Copándaro

Copándaro, an ejido in Villa Jiménez, Michoacán, is the point of origin of a rather distinctive process of migration to California. This community's prosperity, based on high lentil yields, stems from investments in agriculture financed largely by the earnings of migrants to the U.S. The ejido's migration pattern, which antedates lentil production, stimulated sizeable investments, primarily in agricultural machinery and infrastructure, and only secondarily in improving the appearance of the village. These various investments have made Copándaro atypical among Mexican ejidos — both because of the investment of migrant earnings in agricultural capital and because of its economic success. The present study will analyze migration in relation to patterns of land tenure (private or communal), land exploitation (subsistence vs. capitalist), etc. A review of the literature will complement long-term fieldwork conducted in Copándaro and its vicinity among local authorities, government representatives, and the migrants themselves.

Begun Feb. 1984. EDC Sept. 1986. CONACYT/CIESAS/El Colegio de Michoacán. Publication: "Orígenes y móviles de la migración al interior de una comunidad indígena del Valle de Oaxaca: Santa Inés Yatzechi" (Bachelor's thesis, UAM-Iztapalapa, 1983).

023. Kenneth D. Roberts (Dept. of Economics, Southwestern Univ., Georgetown, TX 78626)
Agricultural Change in the Bajío, 1954-1974

This research seeks to determine the effects of a radical change in agricultural production and technology upon a variety of farm types in the Bajío region of central Mexico. The period under consideration, the twenty years between 1954 and 1974, was critical for the Bajio: early during this period the entire complement of what has become known as the "green revolution" package of improved inputs was introduced into the region. Thus the region, with its wide variety of farm types and tenures, offers a unique opportunity to analyze the long-term effects of rapid change in agricultural technology on farms of different kinds. It will focus on how this change has affected the incomes and employment of farmers, their dependents, and landless laborers. The study will draw evidence from comparable survey data on the same 218 farm units, including a 1974 survey designed specifically for the purposes of this research. The surveys include extremely complete data with regard to acreage and crops, production, costs, and capital availability. Labor data is disaggregated for each farm by crop, month, type of laborer, and activity.

Begun Aug. 1983. EDC Dec. 1985. Mellon Foundation/Faculty Development Grant/Center for U.S.-Mexican Studies, UCSD. Publications: "Agrarian Structure and Labor Mobility in Rural Mexico," *Population and Development Review* 8:2 (1982); *Agrarian Structure and Labor Migration in Rural Mexico: The Case of Circular Migration of Undocumented Workers to the U.S.* (Austin, Tex.: ILAS, UT-Austin, 1980).

024. ‡David L. Runsten, ‡Linda Wilcox (Dept. of Agricultural and Resource Economics, UCB, Berkeley, CA 94720)
Agroindustrialization in the Bajio of Guanajuato

This regional study focuses on an area of Mexico characterized by a relatively advanced agricultural sector and a high degree of agroindustrial development. It will attempt to analyze the dynamic effects of agroindustrialization, focusing upon relations between processing plants and producers on the one hand, and upon labor issues on the other. In their examination of producer-processor relations, the researchers will conduct detailed analyses of contracts, compare costs of production and participation in agroindustrial systems by class, and assess the possibilities for peasant participation, as well as the role of the state, in these systems. In their consideration of labor issues, they will examine local conditions of agricultural employment, migration flows, and changes in the labor process for the dominant crops of the region. The project draws farm production data from an extensive survey of the area's farms; it derives agroindustrial plant data from the Coordinación General de Desarrollo Agroindustrial (SARH), the Secretaría de Trabajo y Previsión Social, the Instituto Mexicano de Comercio Exterior, and field surveys.

Begun Mar. 1981. Ongoing. Doherty Fellowship Committee, Princeton Univ./SSRC/Center for Latin American Studies, UCB.

025. ‡Mechthild Rutsch Zehmer, Héctor Díaz-Polanco (CIIS, Plaza del Carmen 7, San Angel, México, D.F. 01000)

Capitalism and Dairy Farming in Mexico

Based in part on a prior study of the socioeconomic underpinnings of Mexico's beef production, the present research will attempt to present a critical overview of the country's production, consumption, and importation of dairy products. It will also relate these processes to those operating at the international level. The researcher has reviewed statistical, bibliographic, and newspaper information and will conduct open-ended interviews with government officials and milk producers.

Begun July 1984. EDC July 1985. Leche Industrializada CONASUPO/CIIS. Publications: M. Rutsch, *La ganadería capitalista en México* (México, D.F.: Ed. Línea/CIIS, 1984); M. Rutsch, "El Sistema Alimentario Mexicano y la ganadería bovina de carne," *Nueva Antropología* 17 (May 1981).

026. Gundram Walter (Institut fuer Soziologie, Free Univ. of Berlin, Babelsberger Str. 14-16, 1000 Berlin 31, Federal Republic of Germany)

Government Institutions for Agricultural Credit

Part of a larger Free University of Berlin project examining recent development in Mexico and migration to the northern border, this study examines the combined impact of federal credit agencies such as CONASUPO and BANRURAL on small-scale agriculture. It focuses on the socioeconomic structure of a community of small landowners and *ejidatarios* in Michoacán.

Begun July 1984. EDC Aug. 1985. Free Univ. of Berlin.

027. Richard H. Wood, Jr. (Dept. of Economics, Stetson Univ., DeLand, FL 32724)

The Effects of Ejidos on the Mexican Labor Market

This study examines certain labor market conditions among agricultural workers in the 32 Mexican states. It attempts to determine how the proportion of total lands controlled by ejidos influences labor markets. Specifically, the study aims to test the hypothesis that states with relatively large amounts of ejido land are likely to have less poverty and improved labor market conditions.

Begun June 1983. Ongoing. Stetson Univ.

Anthropology

028. Stanley H. Brandes (Dept. of Anthropology, 232 Kroeber Hall, UCB, Berkeley, CA 94720)
Ritual Symbolism in Tzintzuntzan

The overall goal of this research has been to carry out a full-scale investigation of the symbolic significance of religious ritual in the Spanish-speaking village of Tzintzuntzan, located on the shores of Lake Pátzcuaro, Michoacán. The project has involved a detailed inquiry into the public and private events connected with the major community rituals; an analysis of who participates in selected aspects of rituals and why; a consideration of ritual reversals and ritual humor; and metaphoric meaning in Tzintzuntzan ritual. The researcher is now focusing on the origin and distribution of discrete elements in the Tzintzuntzan ritual cycle in preparation for a study of ritual change.

Begun 1978. Ongoing. Mexican Studies, UCB. Publications: "*Cargos* versus Cost-sharing in Mesoamerican Fiestas, with Special Reference to Tzintzuntzan," *Journal of Anthropological Research* 37 (1981); "The *Posadas* in Tzintzuntzan: Structure and Sentiment in a Mexican Christmas Festival," *Journal of American Folklore* 96 (1983); "Animal Metaphors and Social Control in Tzintzuntzan," *Ethnology* 23 (1984).

029. ‡Gloria R. Bravo Ahúja, Georganne Weller (CIIS, Plaza del Carmen 7, San Angel, México, D.F. 01000)
Language Proficiency of Indian Children in Oaxaca

This ongoing project analyzes the results of a two-hour oral proficiency test in Spanish applied in 1980 to 360 Indian children and to some 80 native Spanish speakers from the same rural areas in the state of Oaxaca. Administered after six years of formal schooling in Mexican public schools, the test took into account individual, family, and community attitudes and other variables that impinge on Indian children's traditionally poor school record and low level of proficiency in Spanish. Results will hopefully assist in developing language policy regarding the preparation of Indian children to interact socially and to compete educationally with native Spanish speakers from the larger mestizo society.

Begun Jan. 1980. Ongoing. Mexican government.

030. ‡Carole Browner (Neuropsychiatric Institute, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024), Bernard Ortiz de Montellano (Dept. of Anthropology, Wayne State Univ., Detroit, MI 48202)
Sociocultural and Pharmacological Aspects of Women's Reproductive Medicine

This ongoing research deals with the sociocultural and pharmacological features of indigenous fertility-regulating practices of Mexican peasant women living in the Chinantec region of Oaxaca. While some research has recently explored the biochemistry of native medicines, less interest has been shown in studying the systems of social relations which regulate the use of medicinal plants and herbs in traditional societies. Research of this type is particularly important for developing models of social organization that consider the experiences of women as well as men. This study hypothesizes that Chinantec women maintain a specialized body of knowledge about birth-control remedies which allows them to regulate fertility without others' knowledge. This secret store of information provides them with a basis for maintaining some personal autonomy in an otherwise male-dominated society. The study focuses on three general questions: What is the domain of women's reproductive medicine? How is information about this domain communicated? How does this knowledge allow women greater control over reproduction than might be expected, given a cultural system that encourages high birth rates?

Begun July 1980. EDC Dec. 1985. NSF/Wenner-Gren Foundation. Publications: "Herbal Emmenagogues Used by Women in Colombia and Mexico," in *Plants Used in Indigenous Medicine: A Bio-Cultural Approach*, ed. N. Etkin (New York: Docent Publishers, forthcoming); C. Browner, "The Politics of Reproduction in a Mexican Village," *Signs: Journal of Women in Culture and Society*, forthcoming; C. Browner, "Gender Conflicts over Social Change in a Oaxaca Municipio," submitted.

031. Frank Cancian (School of Social Sciences, UCI, Irvine, CA 92717)
Changing Patterns of Social Stratification in Zinacantán, Chiapas

The researcher has studied various aspects of economic change, change in the religious *cargo* system, and the growth of government programs in Zinacantán during several short field trips in 1981, 1982, 1983, and 1984. He plans to compare his work with that of the Harvard Chiapas Project, which from the mid-1950s through the 1970s produced general background, specific studies, and hamlet censuses of the area. The study aims at clarifying the definition of Zinacantán as a semi-autonomous local system; documenting the effect of world market forces, government intervention, and recent changes in the national economy on the local social structure; and assessing the degree of internal conflict and internal differentiation associated with increasing involvement with the larger system.

Begun 1981. Ongoing.

032. Manuel L. Carlos (Anthropology Dept., UCSB, Santa Barbara, CA 93106)
Peasant Political Brokers, Agrarian Reform, and the Mexican State in the Mexicali Valley: A Network Analysis

This study analyzes the relationship between peasant political brokers and the Mexican state. The analysis focuses on the various backgrounds, life histories, and political contacts of a sample of peasant leaders and their involvement in agrarian reform processes in the Mexicali Valley of Baja California. Applying a theoretical framework derived from network analysis to the examination of field data collected from eighteen peasant leaders, the study relies on questionnaire data and open-ended interview data collected during 1981 and 1982.

Begun Sept. 1981. Ongoing. Tinker Foundation.

033. Sylvia Chant (Dept. of Geography, University College London, 26
Bedford Way, London WC1H OAP, England)
***Las Olvidadas:* A Study of Women,**
Housing, and Family Structure in Querétaro

This research examined the interrelationships between family structure and household survival strategies in irregular settlements in Querétaro. It attempted to show how composition of the domestic unit could influence the organization and effectiveness of domestic labor, paid work, and housing improvement in low-income communities. In particular it attempted to demonstrate how women's involvement in various aspects of family survival varied according to household type and to outline the reasons for the formation of different family structures. The study was based on 244 structured interviews carried out with women in three irregular settlements in the city and from further in-depth semi-structured interviews with a subsample of 47 cases from the same group.

Begun Oct. 1981. Completed 1984. Economic and Social Research Council, Great Britain. Publications: "Household Labour and Self-Help Housing in Querétaro, Mexico," *Boletín de Estudios Latinoamericanos y del Caribe* 37 (Dec. 1984); "Family Formation and Female Roles in Querétaro, Mexico," *Bulletin of Latin American Research*, forthcoming.

034. Sylvia Chant (Dept. of Geography, University College London, 26
Bedford Way, London WC1H OAP, England)
Labor Markets, Women's Work, and Family Structure
in Mexico

This project will attempt to isolate the primary determinants of female participation in Mexico's labor force and to examine its relationship to family structure in low-income communities. Results from a previous study on family structure in irregular settlements in Querétaro suggested that household composition played a major role in determining female participation in the labor market. Querétaro's economy, based on heavy, export-oriented industry, provides few employment opportunities for women, at least in the higher-paid formal sector. Since little comparable data for other Mexican cities exists, demonstrating the country-wide relevance of these findings about female labor has become problematic. The present interview-based project will look at two or three other Mexican cities with different types of labor markets and different demands for female labor in order to establish more clearly the interrelationships between city-wide economy, women's work roles, and household composition.

To begin Mar. 1985. EDC Dec. 1986.

035. Gabriela Coronado (CIESAS, Casa Chata, Esq. Hidalgo y Matamoros, Tlalpan, México, D.F. 14000)
Castilianization: An Element of Linguistic Change

This project will examine the economic, social, and political factors which favor both active and passive linguistic resistance, as well as how these factors relate to the reproduction of certain forms of communal organization which emerge from the development process and incorporation into the capitalist system. A comparison of four populations in the Mixteca Alta, the study sheds light on the effects of socioeconomic and cultural development on various types of bilingualism. While communication needs clearly motivate the native populations to be competent in Spanish, their native languages provide social cohesion, ethnic identity, and an element of resistance to the pressures imposed by Mexico's capitalist system.

Begun Jan. 1983. EDC Dec. 1985. CIESAS. Publications: "Formas de comunalidad y resistencia lingüística," *Revista del Centro de Investigaciones y Estudios Superiores en Antropología Social*, forthcoming; G. Coronado et al. *Continuidad y cambio en una comunidad bilingüe* (México, D.F.: Ediciones de la Casa Chata, forthcoming).

036. Peter Edward Coy (Dept. of Sociology, Univ. of Stirling, Stirling FK9 4LA, Scotland)
Significance of Rural Practices during Days of the Dead

In the rural community under study, two nonreligious rituals occur at different levels of society during the week of a principal religious festival, All Souls' Day. These secular rituals, the feasting of dead ancestors and the lampooning of live politicians, both seem to be exercises in social control. The identities of and relationships between feast-givers and feast-receivers, on the one hand, and between lampooners and lampooned on the other should indicate the effective purpose of these apparently disparate practices; the researcher will attempt to achieve an understanding of these events through personal interviews conducted at the right time and place.

Begun 1976. Ongoing. British Academy. Publication: *San Antonio Chichimecan. A Highland Mexican Village*, forthcoming.

037. ‡Mike DeNiro, ‡Bruno D. Marino (Dept. of Earth and Space Sciences, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024)
Stable Isotopes as a Tool to Reconstruct Prehistoric Subsistence Patterns in Mesoamerica

A number of investigators have determined certain influences of diet on the distribution of carbon and nitrogen isotopes in bone collagen. This broad-based project will utilize their methodologies to elucidate the subsistence patterns of pre-Columbian populations. It involves the extraction of collagen from skeletal samples, selected primarily from highland (Aztec) and lowland (Maya) interaction spheres; from their findings, the researchers will conduct synchronic and diachronic comparative studies.

Begun May 1983. Ongoing. NSF. Publication: M. Schoeninger, M. DeNiro, and H. Tauber, "Stable Isotopes as a Tool to Reconstruct Prehistoric Subsistence Patterns in Mesoamerica," *Science* 220 (June 1983).

038. ‡Héctor Díaz-Polanco, Mechthild Rutsch Zehmer (Dpto. de Estudios Agrarios y Etnicos, CIIS, Plaza del Carmen 7, San Angel, México, D.F. 01000)

The Present Condition of Mexico's Indigenous Populations

This study will identify economic, social, and cultural transformations affecting Mexico's indigenous populations and determine how such changes have led to a redefinition of these ethnic groups. In particular, the researchers will examine the alteration of geographic boundaries of ethnic populations as a result of capitalist development. The study hypothesizes that changes in a group's inhabited area parallel changes in those factors which define ethnicity; furthermore, a better understanding of ethnic identity and the difficult situation confronting Mexico's indigenous groups will require that this and other noncultural factors be taken into account. The researchers are conducting fieldwork in two regions of Mexico during 1984 and will compare their findings to available macro-social data.

Begun June 1984. EDC indefinite. SEP/CIIS. Publications: H. Díaz-Polanco, "Etnia, clase y cuestión nacional," *Cuadernos Políticos* 30; H. Díaz-Polanco, "La cuestión étnico-nacional en los clásicos," *Antropología Americana* 9 (1984); H. Díaz-Polanco et al., "El indigenismo y los indigenistas," in *Declaración de México* (México, D.F.: Consejo Latinoamericano de Apoyo a las Luchas Indígenas, 1983).

039. ‡James W. Dow, Mindy Holliday (Dept. of Sociology and Anthropology, Oakland Univ., Rochester, MI 48063)

Shamanic Healing and Life Histories of the Sierra Otomí, Mexico

This ethnographically based study of the Otomí Indian group in the Sierra Norte de Puebla in Mexico involves the generation of computerized databases for recording and indexing interview data. The study examines the psychological and medical problems of individuals and the healing techniques of the system of shamanism, a traditional one based on pre-Columbian beliefs and magical rituals. The researcher focuses especially on the problems of adolescents.

Begun Jan. 1981. Ongoing. NIH/BRSG/SSSR/Oakland Univ. Publication: J. Dow, "Symbols, Soul, and Magical Healing among the Otomí Indians," *Journal of Latin American Lore* 10:1 (forthcoming).

040. Theodore E. Downing (Bureau of Applied Research in Anthropology, Dept. of Anthropology, Univ. of Arizona, Tucson, AZ 85721)
Small-Ruminant Economies in Oaxaca

This household-level field survey examines the importance of small-ruminant (sheep and goat) production relative to other domestic enterprises in Oaxaca. In addition to employing the results of field surveys, the researcher is utilizing data from secondary sources to determine why people enter and leave this type of economic activity in the Mixteca Alta and the Valley of Oaxaca.

Begun Feb. 1984. Ongoing.

041. Katrin Greifeld (Mauerweg 10, 6000 Frankfurt 1, Federal Republic of Germany)
The Mayo Teachings of Healing and Salvation

Based on fieldwork as well as secondary sources, this research analyzes the medical systems of the Mayo of northwestern Mexico in relation to the dominant Mexican society. This ethnic medical system, which includes elements of both Mayo and modern Western origin, serves as a means of preserving ethnic identity and perpetuating cultural resistance in everyday life. The study utilizes a description of the Mayos' social life relative to their physical environment and metaphysical views to help analyze the etiology of illness. It also examines diagnostic procedures and preventive medicine in relation to the world view of the Mayo.

Begun Mar. 1981. Completed 1984. Publications: "Zur Situation der traditionellen Medizin in Mexiko," *Curare* 5 (1982); "Aspekte traditioneller Medizin der Mayo in Sonora, Mexiko," *Mexicon* 4:5-6 (1982); *Die Heil-s-lehre der Mayo. Widerstand und Anpassung am Beispiel des medizinischen Systems* (Bern: Peter Lang Verlag, forthcoming).

042. Beatriz Gutiérrez Puente (Centro de Estudios Antropológicos, El Colegio de Michoacán, Av. Morelos Sur 122, Zamora, Mich. 59600)
Urban Marginality in Zamora, Michoacán

This study examines the process by which a marginal sector forms in small or mid-sized cities and uses Zamora, Michoacán as a case study. The researcher has hypothesized that the advance of capitalism in a non-industrialized, traditional town which produces a single agricultural export crop sets the stage for the internal reproduction of a marginal sector because of labor-market characteristics. The study's methodology includes participant observation, interviews with government officials and residents of the marginal sector, and reviews of life histories; it also draws information from archives and newspaper files.

Begun Sept. 1983. EDC Dec. 1985. CONACYT. Publication: A. Ayala and B. Gutiérrez, *Una iglesia colonial de la Sierra Tarahumara y sus pinturas: el Santo Angel de Satebó, Provincia de Chínipas*, Publicaciones de la Capilla Alfonsina (Nuevo León: Univ. Autónoma de Nuevo León, 1984).

043. J. Richard Haefer (School of Music, Arizona State Univ., Tempe, AZ 85287)
Guarijio Music and Musical Instruments

Little is known concerning the Guarijio Indians of Sonora. This project will document both traditional song and European-derived *pascola* music and musical instruments and the manufacture of musical instruments within this culture. The researcher will ultimately examine the relationship of music to Guarijio society. During the project's first phase (Jan.-June 1983), the investigator documented the process of fiddle- and harp-making and established basic ethnographic data concerning Guarijio life. The second phase, now underway, will document the language of traditional songs and their use in ceremonies such as the *tumari*.

Begun Jan. 1983. Ongoing. Fulbright Foundation/Arizona State Univ.

044. ‡Jorge Hernández Díaz, León Javier Parra Mora (Instituto de Investigaciones Sociológicas, Univ. Autónoma "Benito Juárez", A.P. 662, Oaxaca, Oax. 68000)
Interethnic Relations in the Chatino Region of Oaxaca

The goal of this project is to study systematically the relationships between ethnic groups in Oaxaca and Mexico's national society and to examine the consequences of such relationships — cultural change, rural development, etc. — in order to reveal the principles which govern and sustain interethnic systems. A year of fieldwork among the Chatino, an ethnic population of approximately 37,000 living in the southern Sierra Madre of Oaxaca, will focus on the social relations between this indigenous group and the surrounding population.

Begun Jan. 1984. EDC Dec. 1985. Univ. Autónoma "Benito Juárez"/SEP. Publication: J. Hernández Díaz, "Panixtlahuaca: el café como agente de diferenciación social," in *Sociedad y política en Oaxaca 1980: 15 estudios de caso*, comp. R. Benítez Zentano (Barcelona: IISUABJO-Icaria, 1983).

045. ‡John G. Kennedy, ‡Lewis L. Langness (Dept. of Psychiatry, UCLA, 760 Westwood Plaza, Los Angeles, CA 90024)
Feasibility Study of Violence and Non-Violence in Oaxaca

This short preliminary study was designed to assess the possibilities of carrying out a long-term research project comparing non-violent villages in the Valley of Oaxaca with other villages in the same region which have been identified as violent. The researchers hope to discover the conditions that contribute to the production of violence and which ones assist in its control.

Begun Aug. 1984. Completed 1984. BRSG/UCLA Program on Mexico.

046. Viola König (Rautenstrauch Joest Museun, Ubierring 45, 5000 Köln 1, Federal Republic of Germany)
"Forgotten" Zapotec and Chinantec *Lienzos* from Northwest Oaxaca

This ethnohistorical research includes photographic documentation as well as analytic description and interpretation. The researcher is attempting to locate Zapotec and Chinantec *lienzos* about which little information has been gathered. During fieldwork conducted in 1984, she located and photographed four *lienzos*, and she found two more at the Museum of Anthropology in Hamburg. The goal of the next fieldwork stage will be to locate at least three more *lienzos;* analysis of the six already located is now underway. The photographs of these textiles are intended for publication, which should facilitate further research.

Begun Dec. 1981. Ongoing.

047. ‡Fermín Reygadas, ‡Guillermo Velázquez (Centro de Investigaciones Biológicas de Baja California Sur, La Paz, B.C.S. 23060)
Archaeology of the Cape Region of Baja California

This study utilizes archaeological analysis to examine the population movements of the ancient Pericú Indians. By looking at such movements in relation to resources used for survival, the researchers hope to explain how the human being adapted in order to survive in arid zones. The basic supply of fruits and seeds available in each region at a specific time influenced the settlement patterns of the Pericú. Archaeological excavations in several biotic regions will help periodize settlement and show what resources the people exploited. The researchers have selected twelve archaeological excavation sites that range from the coast to the top of Baja California's mountainous area and have consulted ethnological reports and ethnobotanical research for background information.

Begun June 1983. Ongoing. CONACYT. Publications: "Prospección arqueológica de la región del Cabo, B.C.S.," in *Informe General de Labores, CIB,* (La Paz, B.C.S.: CIB, 1981); *El grupo Pericú de Baja California* (La Paz, B.C.S.: FONAPAS, 1983).

048. ‡Fermín Reygadas, ‡Guillermo Velázquez (Centro de Investigaciones Biológicas de Baja California Sur, La Paz, B.C.S. 23060)
Racial Characterization of the Indigenous Groups of Baja California Sur

This project will attempt to determine the development of physical characteristics in a human population that has been isolated for long periods of time. If the paleo-indigenous population was dolichocephalic, isolation would have gradually resulted in a hyperdolichocephalic genetic expression. The researchers will study 25 discontinuous morphological traits of cranea and skeletons from the Baja California Peninsula. Some of these remains come from museum collections and others from original excavations.

Begun June 1983. Ongoing. CONACYT. Publication: *El grupo Pericú de Baja California* (La Paz, B.C.S.: FONAPAS, 1983).

049. Susana Rostas (Graduate School in Arts and Social Sciences, Arts Bldg., Univ. of Sussex, Falmer, Brighton BN1 9QN, England)
"*Stalel*": Religion in a Community of Chiapas

Tenejapa, Chiapas is a community in which traditional beliefs and values are in decline. Traditional religious practice has increasingly been left to the ministrations of a minority, while the majority have become practicing Roman Catholics, Evangelists, or Seventh-Day Adventists. However, all those over the age of 25 were raised with the traditional religion, and despite their later conversion, some still reveal their traditionalism when under stress, e.g., during a volcanic eruption. The traditionalists of the community perform the very necessary communal function of "remaking" Tenejapa by enacting the annual cycle of fiestas with their associated prayers and by performing special prayers on other occasions. The religious practices, prayers, and associated paraphernalia (special clothes, plants, musical instruments, music, etc.) are fairly easy to record; but questions about the beliefs which may lie behind the practices always produce the reply "*stalel*," glossed as "custom" or "habit." The Tenejapans appear not to know why they do what they do or what it means. This research examines the Tenejapan religion in some detail, including an analysis of prayers as a possible means of finding out more about their cosmology and beliefs.

Begun 1980. Ongoing. SSRC, U.K./CONACYT.

050. Michael E. Smith (Dept. of Sociology and Anthropology, Loyola Univ., 6525 N. Sheridan Rd., Chicago, IL 60626)
Postclassic Economic Organization in Morelos

This analysis of particular aspects of pre-Hispanic economic and political organization in Morelos is based on archaeological and ethnohistorical data from the Postclassic epoch (A.D. 950-1520). The study involves correlating a detailed archaeological chronology based on stratigraphy and quantitative seriation with the native historical record for the area of western Morelos. Ethnohistorical sources helped reveal patterns of economic and political organization at the time of the Spanish conquest, and the archaeological and native historical records served to document the origin and development of selected patterns and institutions through time. The results of this study will bear on such questions as the nature of pre-Hispanic production and distribution systems in central Mexico;

the evolution of city-states in the final centuries of the pre-Hispanic era; and the origin and growth of the Triple Alliance or Aztec empire.

Begun Jan. 1980. EDC Dec. 1984. Wenner-Gren Foundation/Tinker Foundation/Univ. of Illinois. Publications: "Postclassic Culture Change in Western Morelos, Mexico: The Development and Correlation of Archaeological and Ethnohistorical Chronologies" (Ph.D. thesis, Univ. of Illinois, 1983); "Postclassic Economic Organization in Morelos, Mexico: Changing Patterns of Production and Distribution," submitted.

051. Michael E. Smith (Dept. of Sociology and Anthropology, Loyola Univ., 6525 N. Sheridan Rd., Chicago, IL 60626)

The Effects of Aztec Conquest on Rural Society in Morelos

This project will involve the archaeological excavation of three Late Postclassic (A.D. 1350-1520) rural villages in western Morelos in order to evaluate the local effects of Aztec conquest and the subsequent incorporation of the area into the Aztec or Triple Alliance empire. Using archaeological data, the researcher will test an ethnohistorical model of the effects of Aztec conquest and will evaluate documentation on selected economic and social variables in provincial areas. These variables include levels of agricultural and craft production; types of exchange systems (markets, external trade, tribute); demographic and nutritional factors; and patterns of social stratification and levels of wealth. Excavation will focus on a sample of residential structures in order to reconstruct social and economic organization at both the household and community levels prior to and after the incorporation of western Morelos into the Aztec empire.

To begin June 1985. EDC indefinite.

052. ‡Livingston D. Sutro, Theodore E. Downing (Bureau of Applied Research in Anthropology, 316, Univ. of Arizona, Tucson, AZ 85721)

Díaz Ordaz Project

This project is identifying the key sociocultural determinants behind change in the use of domestic space in the homesteads of a Zapotec peasant-Indian village in Oaxaca. The researchers compared demographic, economic, religious, political, and attitudinal data (plus maps of homesteads) collected in the 1960s by students in the Stanford Summer Ethnographic Field School with similar data gathered in 1980-81 by the principal investigator. The researchers have noted relevant diachronic changes and have identified significant associations between space use and sociocultural variables and are presently investigating changes in the structure of domestic space use and the reasons for such changes. The researchers' current emphasis is to develop a grammar of space.

Begun Nov. 1980. Ongoing. Bureau of Applied Research in Anthropology, Univ. of Arizona/Sigma Xi. Publications: "Changes in the Uses of Zapotec Domestic Space" (Paper presented at the 47th Annual Meeting of the Society for American Archaeology, Minneapolis, Minn., 1982); T. E. Downing, "A Step toward a Grammar of Space; Domestic Space Use in Zapotec Villages" (Paper presented at the 48th Annual Meeting of the Society for American Archaeology, Pittsburgh, Pa., 1983); L. D. Sutro, "Changing Uses of Zapotec Domestic Space" (Ann Arbor, Mich.: University Microfilms International, 1983).

053. Thomas C. Tirado (Dept. of History, Millersville Univ., Millersville, PA 17551)
***Celsa's World:* Conversations with**
a Mexican Peasant Woman

Celsa's World is a compilation of oral remembrances of a 48-year-old grandmother, matriarch of a large family, and a lifelong resident of a central Mexican pueblo in the municipality of Tepoztlán, Morelos. The main character of this study spent her entire life amidst rural poverty, faced unbelievable hardships raising a family, and survived one calamity after another. More than just a personal narrative of an individual, however, *Celsa's World* will provide the reader with a first-hand account of life in an authentic Indian-peasant community. The work reveals Celsa's world through her own eyes, gives her view of past and present, and discloses cultural change and its meaning for Celsa and her community. Through Celsa the reader will experience a personal communion with Nature's life forces. One of the major conditions which distinguishes her world from the modern one is the intimate — and, at times, delicate — relationship which exists between Man and Nature. Respect for Nature and Nature's laws is essential for survival.

Begun 1960s. Completed 1984. Univ. of Illinois/Millersville Univ..

054. Rudolph C. Troike (Dept. of Educational Policy Studies, Univ. of Illinois at Urbana-Champaign, 1310 South Sixth St., Champaign, IL 61820)
Coahuilteco and Other Indian Languages
of Texas and Northeast Mexico

Northeast Mexico and south Texas constitute an ecological area which in pre-European times was also a cultural area, occupied by semi-nomadic groups speaking a variety of related and unrelated languages, all now extinct. The best known is Coahuilteco, but they include Comecrudo, Cotoname, and Borrado. The researcher is working on a grammar (with edited texts) of Coahuilteco, utilizing the computer, and has undertaken syntactic and comparative research on Comecrudo and Karankawa. Coahuilteco data come primarily from a 1760 confessor's manual by Bartolomé García, and data on other languages derive from manuscript sources in various archives.

Begun 1958. Ongoing. University Research Board.

055. Benjamín Trujillo Rodríguez (Unidad SEAD 022, Univ. Pedagógica Nacional, Tijuana, B.C.N. 22200)
Linguistic Classification of Guaicura and Pericú

This effort seeks to classify two indigenous Mexican languages, Guaicura and Pericú, which this researcher believes belong to the Hokan language trunk. Bibliographic sources and comparative linguistic methodology combine to provide the basis for this classification.

Begun Oct. 1983. Completed 1984.

056. Georganne Weller (Dept. of Languages and Literature, Univ. of Delaware, Newark, DE 19711)
The Penetration of Spanish in the Montaña de Guerrero

This doctoral dissertation project has two basic goals: to qualitatively validate or invalidate the quantitative results of the question on Spanish-speaking ability in the 1980 Mexican census; and to document and analyze changes from 1940 to the present in the number of monolingual and bilingual speakers of Nahuatl, Mixtec, or Tlapanec in the mountains of Guerrero. The researcher collected linguistic, social, and economic data during the fall of 1984 and will use them to evaluate present language proficiency and attitudes, as well as the effects of schooling and other socioeconomic variables which determine language maintenance or shift. Hopefully this information will be useful to the Indians themselves, to researchers, and to the Mexican government (for bilingual-education and other language-related policy decisions).

Begun Jan. 1984. EDC June 1985. CIIS/DGEI/Governor's Office, State of Guerrero.

057. Raymond E. Wiest (Dept. of Anthropology, Univ. of Manitoba, Winnipeg, Manitoba, Canada R3T 2N2)
**Land, Labor, and Social Structure:
Change in Rural Mexico**

This project deals with the impact of international economic forces on the allocation and use of land and labor in a north-central Michoacán agricultural community undergoing production diversification through the expansion of the forestry industry. This final phase of a research project begun in 1966 entails analyzing historical documents and local forestry industry data, evaluating a 1983 census of village households and comparing it with a similar 1971 census, and preparing a book on the political economy of the village. The earlier phase of the research generated data on domestic group organization, conjugal relations, woman-headed households, sources and levels of income, and rural-to-urban and international labor migration. These data help to enrich the more recent findings on production, class interests, and the ideological and political implications of rural proletarianization.

Begun Jan. 1983. EDC Sept. 1985. SSHRC, Canada/Univ. of Manitoba Research Grants Committee. Publications: "La dependencia externa y la perpetuación de la migración temporal a los Estados Unidos," *Relaciones: Estudios de Historia y Sociedad* 4 (1983):53-87; "External Dependency and the Perpetuation of Temporary Migration to the United States," in *Spatial Perspectives on Undocumented Migration: Mexico and the United States*, ed. Richard C. Jones (Totowa, N.J.: Rowman & Allanheld, 1984); *Land and Labor in Acuitzio: Peasants, Proletarians, and Capitalism in Rural Mexico*, forthcoming.

058. Keiko Yoneda (CIESAS, Victoria 75, Tlalpan, México, D.F. 14000)
The *Mapa de Cuauhtinchan No. 3* and its Historical Context

This project undertakes a reconstruction in Nahuatl of the pictorial manuscript *Mapa de Cuauhtinchan No. 3*, produced in the state of Puebla during the 16th century. This research places the manuscript within the social, political, and economic context prevailing at the time of its writing and analyzes the efficacy of this type of manuscript as a system of writing and as an historical record. Utilizing related writings in Spanish and Nahuatl as well as pictorial manuscripts from the colonial period, the researcher has divided the individual glyphs into component parts and has sought to attribute a particular Nahuatl word to each.

Begun July 1981. EDC Dec. 1984. CIESAS. Publications: *Los mapas de Cuauhtinchan y la historia cartográfica prehispánica* (México, D.F.: Archivo General de la Nación, 1981); J. Galarza, K. Yoneda et al., *Mapa de Cuauhtinchan No. 3 (glifos: catálogo — diccionario)* (México, D.F.: Archivo General de la Nación, 1982).

Archaeology

059. ‡Claude F. Baudez (Centre National de la Recherche Scientifique, Paris, France), ‡Berthold Riese (Lateinamerika Institut, Free Univ. of Berlin, Breitenbachplatz 2, 1 Berlin 33, Federal Republic of Germany)
Sculpture of Copán

This project examines classical Maya inscriptions and monumental sculpture for iconographic and historical content. The researchers will publish photographs and drawings of the monuments and will thoroughly analyze each one. They plan to undertake an overall synthesis of Copán's iconographic and inscriptional content.

Begun Dec. 1977. EDC 1985. Copán Project/Deutsche Forschungsgemeinschaft/CNRS.

060. ‡Thomas R. Hester (Center for Archaeological Research, UT-San Antonio, San Antonio, TX 78285), Harry J. Shafer (Dept. of Anthropology, Texas A&M Univ., College Station, TX 77843)
Colha Archaeological Project

Since 1979 the researchers have been directing studies of the Maya site of Colha in Belize. Major field sessions were conducted in 1979, 1980, 1981, and 1983; excavations and mapping were carried out in 1984, and another field session is planned for 1985. The investigations have focused on the unique role of ancient Colha as the center of mass production of chipped stone tools in this area of the Maya lowlands. Over 100 stone tool workshops have been found among the several thousand mounds and structures at the site. This production center, located in what is now northern Belize, exported utilitarian and ritual stone tool forms to ancient Maya communities that now lie within the Mexican state of Quintana Roo. These Mexican Maya sites may mark the northern limit of the Colha marketing sphere in the distribution of these mass-produced tools.

Begun Jan. 1979. Ongoing. Centro Studi Ricerche Ligabue (Venice)/NEH/Earthwatch/National Geographic Society. Publications: "Exploitation of Chert Resources by the Ancient Maya of Northern Belize, Central America," *World Archaeology* (London), forthcoming; "Ancient Maya Chert Workshops in Northern Belize, Central America," *American Antiquity* 48:3 (1983):519-543; T. R. Hester, H. J. Shafer, and J. D. Eaton, *Archaeology at Colha: The 1981 Interim Report* (San Antonio, Tex.: Center for Archaeological Research, Univ. of Texas, San Antonio, 1982).

061. ‡Hasso Hohmann (Johann Loserthgasse 16, A-8010 Graz, Austria), Annegrete Vogrin (Institute for Urban Planning, Technical Univ. of Graz, Rechbauerstrasse 12, A-8010 Graz, Austria)

Comparative Studies on Maya Architecture

Pre-Columbian Maya architecture, paintings on Maya ceramic vessels, reliefs, wall-paintings, figurines, models, etc., and reports of the early post-conquest era have indicated the importance of tension-stressed constructions in Maya architecture and Maya culture in general. This project will attempt to deepen our knowledge regarding this issue by determining whether the pre-Columbian Maya used hammocks, whether they used suspension bridges or other tension-stressed bridge constructions, and why they preferred the corbeled vault and used the true vault only in a very few cases. In 1985 the researchers plan to undertake a geodetic survey of newly excavated architecture in Honduras and to study the construction of various Maya centers in Guatemala and Mexico.

Begun 1983. EDC indefinite. Austria Science Research Fund. Publications: "Representations of Litters Which are Copies of Buildings or of Seating-Accommodation," in *Las representaciones de arquitectura en la arqueología de América*, vol. 2, ed. Daniel Schavelzon (México, D.F.: UNAM, forthcoming); "Hängematten und Hängebrucken im Präkolumbischen Mesoamerika?" *Archiv für Völkerkunde* (Vienna) 38 (1984).

062. Karl Herbert Mayer (ISMR, Hoetzendorfstrasse 8/4, A-8010 Graz, Austria)

An Inventory of Unprovenanced Maya Stone Monuments

Previous investigations of stone relief sculptures of the ancient Maya have focused exclusively on items of known provenance which originated from scientifically controlled surveys and excavations. In the past three decades, however, major stone sculptures have appeared in public and private collections, in exhibits, and on the international art market, the places of origin of which have not been definitely determined. In order to ascertain the extent of these important monuments, this project attempts to inventory them, with the purpose of rendering the so-called "corpus of unprovenanced Maya stone monuments" available for scientific study in the near future. This study defines monuments as major archaeological sculptures of stone, with reliefs. In strict contrast to other projects, this documentation deals exclusively with monuments of unknown place of origin with carvings of pictorial and/or textual images. Now in preparation, the first supplemental volume to the three catalogues already published will cover items scattered all over the world.

Begun Jan. 1975. Ongoing. Austria Science Research Fund. Publications: *Maya Monuments: Sculptures of Unknown Provenance in Europe* (Ramona, Calif.: Acoma Books, 1978); *Maya Monuments: Sculptures of Unknown Provenance in the United States* (Ramona, Calif.: Acoma Books, 1981); *Maya Monuments: Sculptures of Unknown Provenance in Middle America* (West Berlin: Verlag K.-F. von Flemming, 1983).

063. Karl Herbert Mayer (ISMR, Hoetzendorfstrasse 8/4, A-8010 Graz, Austria)

An Inventory of Maya Hieroglyphs on Minor Artifacts

This project focuses on Maya hieroglyphic texts on minor artifacts made of stone (jade, limestone, obsidian, onyx, slate, etc.), wood, metal, bone, stingray spines, shells, turtle carapace, etc. The study omits Maya glyphs painted on stucco-covered bark paper (Maya codices) and on ceramics (painted, molded, carved, or incised); the codices have already been reproduced in true-color facsimile editions and on color slides, and the numerous Maya ceramics, predominantly vases and plates, are being recorded by other scholars and institutions. This is the only current project aimed at compiling data and illustrations of Maya minor texts, also called "miscellaneous inscriptions." A preliminary survey by the researcher indicates that prior work by scholars interested in this topic has registered only a small fraction of the items in this genre. Data on miscellaneous Maya texts are widely scattered, and the majority of them were not discovered in the course of scientifically controlled archaeological work. Published data from this study will appear in fascicles.

Begun May 1983. Ongoing. Austria Science Research Fund/Austrian government. Publication: "Maya Texts on Minor Objects," ISMR Working Papers, no. 1 (Graz, Austria: ISMR, 1983).

064. Karl Herbert Mayer (ISMR, Hoetzendorfstrasse 8/4, A-8010 Graz, Austria)

Representations of Dwarfs on Maya Monuments

This iconographic study attempts to clarify the role and significance of dwarfs in ancient Maya thought and society. Although rather sporadic, the occurrence of dwarfs and dwarfs with humpbacks in ancient Maya monumental art is widespread. Classic Maya monumental art includes portrayals of dwarfs and humpbacked dwarfs on stone, wood, and stucco. Monuments with dwarf figures include stelae, altars, doorway columns, wall panels, doorjambs, facade decorations, and hieroglyphic stairways. The sometimes detailed recording of these physical deformities implies that the Maya artist was well acquainted with dwarf characteristics and that dwarfism occurred to a certain degree in the aboriginal population. Representations of dwarfs occur predominantly in scenes commemorating the lives of the Maya ruling elite and to a lesser degree in nonhistorical scenes.

Begun Jan. 1984. Ongoing. Publication: *Dwarfs and Humpbacks among the Pre-Columbian Maya* (Oss, Netherlands: Organorama, forthcoming).

065. Karl Herbert Mayer (ISMR, Hoetzendorfstrasse 8/4, A-8010 Graz, Austria)

Phallic Representations in Ancient Maya Art

It is generally believed that phallic representations in ancient Maya art are based on influences from regions in Veracruz, the Huasteca, and central Mexico. This project will document representations of phalli in the Maya region, particularly in the northern Maya lowlands, where they occur rather frequently in the Puuc zone, at Chichén Itzá, and on the east coast of Quintana Roo. The study hypothesizes that phallic rituals were not a late or foreign trait in Maya culture; archaeological data suggest that they have a long history and wide distribution. Certain images and carved stone phalli, moreover, are found exclusively in the Maya area and never in any other Mesoamerican culture, offering compelling evidence of the independent development of the concept by the Maya.

Begun Mar. 1984. Ongoing.

066. William Breen Murray (Dpto. de Antropología, Univ. de Monterrey, A.P. 4442, Suc. H., Monterrey, N.L.)

Photographic Documentation of Prehistoric Rock Art

This research involves preliminary identification of rock art sites in northeastern and north central Mexico (in the states of Nuevo León and Coahuila) and photographic recording of selected petroglyphs and pictographs at each site. The researcher will attempt to identify relationships between Mesoamerica and the U.S. Southwest via the Sierra Madre Oriental corridor. The methodology includes a special emphasis on paleoecology and archaeoastronomy as indicators of prehistoric adaptation and contacts.

Begun Sept. 1978. Ongoing. Publications: "Description and Analysis of a Petroglyphic Tally Count Stone at Presa de La Mula, Nuevo León, México," *Mexicon* 1:1 (1979):7-9; "Rock Art and Site Environment at Boca de Potrerillos, Nuevo León, México," *American Indian Rock Art* 7-8 (1982):57-68.

Communications

067. Marvin Alisky (Dept. of Political Science, Arizona State Univ., Tempe, AZ 85287)
Government and the Television Media in Mexico

This research will attempt to discover how the conversion of Mexico City's Channel 8 to noncommercial cultural video has affected the public-service programming of Televisa's other three networks. It will especially examine the impact of the new cultural format on the public-service programming of Channel 13, the governmental network. The researcher hypothesizes that the switch to cultural programming on Channel 8 will enable Televisa to minimize the public-service programming of its other channels. He suggests that Televisa will maintain the format and content of its news programs, since they guarantee large audiences and reflect undertones of coexistence with criticism in the realm of government-media relations. The research entails ongoing analysis of program formats and content; and certain high-priority governmental programs, such as the promotion of family planning centers, will serve as prime case examples. The study draws data from Televisa and from producers.

Begun July 1984. EDC July 1986.

068. ‡Federico Dávalos Orozco (Centro de Estudios de la Comunicación, UNAM, C.U. México, D.F. 04510), ‡Esperanza Vázquez Bernal (Centro Universitario de Estudios Cinematográficos, UNAM, Adolfo Prieto 721, México, D.F. 03100)
Mexican Silent Films, 1916-1930

This study of silent movies in Mexico will address the nature of these films and their organization, as well as the role they played within Mexican society prior to 1930. The researchers begin their review with the introduction of fiction films and the initiation of a sustained effort to establish a national filmmaking industry in 1916. The initial research involved the collection and ordering of information held in newspaper and periodical files; the researchers have subsequently undertaken an analysis of the relationship between Mexican films and Mexican society in the following historical periods: *carrancismo*, 1916-20; *obregonismo*, 1920-24; *callismo*, 1924-28; and the *maximato*, 1928-30.

Begun Apr. 1981. EDC indefinite.

069. Enrique Guinsberg (Dpto. de Educación y Comunicación, UAM-Xochimilco, Calz. del Hueso 1100, Col. Villa Quietud, México, D.F. 04960)

Mass Communication and Psychosocial Profiles

This study considers the influence of mass communication on the structuring of the psyche, especially the ego and superego, and on the development of specific views of reality, encouragement of fantasies, criteria for mental health or illness, etc. The researcher presents this information as a component of social systems, each of which seeks to mold a specific type of social being in order to assure the survival of the system. While this research is not specific to a particular society, it does focus on mass communication in Latin America, especially in Mexico.

Begun May 1983. Ongoing. UAM-Xochimilco. Publications: *Medios masivos de comunicación y formación psicosocial* (México, D.F.: Instituto Latinoamericano de Estudios Transnacionales, 1980); *Control de los medios, control del hombre* (México, D.F.: Ediciones Nuevomar, forthcoming); *Publicidad: manipulación para la reproducción* (México, D.F.: Taller de Investigaciones en Comunicación Masiva, UAM-Xochimilco, forthcoming).

070. ‡Harold E. Hinds, Jr. (Division of Social Sciences, Univ. of Minnesota-Morris, Morris, MN 56267), Charles Tatum (Dept. of Foreign Languages, New Mexico State Univ., Las Cruces, NM 88003)

Mexican Comic Books

This book-length study comprises in-depth comparative analyses of best-sellers in a number of Mexican comic book genres, an analysis of the Mexican comic book industry, and a media imperialism and dependency analysis of the industry and its products.

Begun 1977. Completed 1984. Univ. of Minnesota/New Mexico State Univ./Univ. of Chicago-Univ. of Illinois Joint Latin American Studies Center. Publications: H. Hinds, "Kalimán: A Mexican Superhero," *Journal of Popular Culture* 13:2 (1979); C. Tatum, "Lágrimas, risas y amor," *Journal of Popular Culture* 13:3 (1980); H. Hinds, "*El Payo*: una solución popular a la lucha mexicana entre los robatierras y los descamisados," *Hispamérica* 31 (1982).

071. Norma V. Iglesias Prieto (CEFNOMEX, Abelardo Rodríguez 21, Zona del Río, Tijuana, B.C.N. 22320)
Mexican Film and the Border

This project will examine Mexican commercial films dealing with the U.S.-Mexico border region, the types of perspectives and problematics contained in their plots, and their impact on the creation and reinforcement of stereotypes, cultural values, and behavioral norms among residents of the border region. To identify and classify the films, the researcher will consult film archive catalogs and brochures from Mexican film distributors. Following a content analysis of the films, the researcher will relate their content to the impact which they have had on the border population. Data for this last phase will be obtained through a questionnaire-based survey.

Begun Feb. 1984. EDC Feb. 1985. CEFNOMEX.

072. David R. Maciel (Dept. of History, UNM, Albuquerque, NM 87131)
The Contemporary Mexican Cinema, 1965-1984

This in-depth study of recent movies and the contemporary film industry in Mexico will address the following principal themes: the State and cinema; images and trends in films; socioeconomic aspects of the cinema; organized labor and the cinema; North American influences in the Mexican cinema; and the crisis of the cinema. The methodology will include content analysis and open-ended interviews. The researcher plans to begin his analysis from the notion of a sociology of film and will emphasize the relationship among arts, politics, and commercialism.

Begun June 1982. Ongoing.

073. Enrique Rivera Rivera (Dpto. de Comunicación, ENEP, UNAM-Acatlán, Alcanfores y San Juan Totoltepec, Naucalpan, Méx. 53140)
A Radio News Program for an Indigenous Community in Michoacán

This project seeks to develop and produce a bilingual radio news program for broadcast to an indigenous community in Michoacán. This broadcast, which would welcome listener participation, will be designed to meet the needs and expectations of the audience and to encourage their assimilation into and understanding of the surrounding world.

Begun Mar. 1983. EDC indefinite. Publications: "La radio: soberanía e identidad nacional," in *Foro de Consulta Popular sobre Comunicación Social, 1983;* "Perspectivas de los medios de comunicación en las zonas rurales" (Paper presented at "Comunicación Intercultural Norte-Sur," Univ. de las Américas, Dec. 1983).

074. ‡Carol Ann Valentine, Dorothy Soricone (Dept. of Communications, Arizona State Univ., Tempe, AZ 85287), Banisa Saint Damian (Dept. of Women's Studies, Arizona State Univ., Tempe, AZ 85287)
Gender and Culture as Determinants of the Ideal Voice

It is generally believed that the effects of gender and culture on notions of the "ideal voice" are insignificant relative to characteristics typically associated with "good speech": clarity, unobtrusiveness, and appropriateness. This study examined these widely accepted descriptors of the ideal voice in cross-gender and cross-cultural perspective, probing for typifications of the ideal voice for a public speaker, a male, and a female, in Mexico and the U.S. The study revealed that idealized male and female voice types in Mexico correlate very closely with the ideal voice (gender unspecified) on all four dimensions — pitch, volume, rate, and diction. In the U.S., on the other hand, neither the ideal male nor the ideal female voice correlated closely with the ideal voice, but the idealized male voice did conform more closely than did the female. Intersocietal comparison revealed that in both countries, the "ideal" speaker's voice possesses the qualities of clear enunciation and cheerfulness, while being well-modulated and free of regional accent. The idealized male vocal delivery in both cultures is somewhat low in pitch and somewhat slow. However, the ideal Mexican male is expected to use greater volume and take more care with diction than is the U.S. male. The idealized female voice types in Mexico and the U.S. share the characteristics of softness of volume, medium to somewhat slow rate of delivery, and careful enunciation. However, the idealized Mexican female voice is also expected to be delicate and sensual.

Begun Oct. 1981. Completed 1984. Publication: "Gender and Culture as Determinants of the Ideal Voice," submitted.

Economics

075. ‡Ivico Ahumada Lobo, ‡Gustavo Juan Alarcón Martínez (Dirección de Política Laboral, UCPEET, STPS, Dr. José Ma. Vértiz 96, 1° piso, México, D.F. 06170)
Analysis of Productivity by Type of Economic Activity, 1970-1981

This study differentiates among the various sectors of economic activity and analyzes their production levels over time. It also proposes policies oriented toward increased production.

Begun Jan. 1984. Completed 1984. STPS.

076. ‡Gustavo Juan Alarcón Martínez, ‡Jorge Alvarado Granados (Dirección de Política Laboral, UCPEET, STPS, Dr. José Ma. Vértiz 96, 1° piso, México, D.F. 06170)
Profit Sharing in the Industrial Sector, 1970-1982

The researchers have analyzed the impact of Mexico's system of profit sharing on the income levels of industrial workers between 1970 and 1982. Their study provides historical, legal, and quantitative analyses, as well as a description of the criteria used in determining the percentage of profits distributed.

Begun Jan. 1984. Completed 1984. STPS.

077. ‡Gustavo Juan Alarcón Martínez, ‡Gabriela Correa López (Dirección de Política Laboral, UCPEET, STPS, Dr. José Ma. Vértiz 96, 1° piso, México, D.F. 06170)

The Economic Cycle and Labor Variables

This study of the relationship between economic growth and labor variables in Mexico between 1963 and 1981 presents a general theoretical model of this relationship, followed by a description of the behavior of certain labor variables during the period under study. The researchers will compare the descriptive information with hypotheses advanced in the general model.

Begun Jan. 1984. EDC Dec. 1984. STPS.

078. ‡Raúl Arias, ‡Francisco Calderón, ‡Celso Garrido Noguera, ‡Cristina Gutiérrez, ‡Cristián Leriche, ‡José Luis Manzo, ‡Mayabel Márquez, ‡Miguel Mendoza, ‡Enrique Quintana, ‡Lilia Rodríguez, ‡Graciela Vázquez (Dpto. de Economía, UAM-Azcapotzalco, Av. San Pablo 180, Col. Reynosa Tamps., Azcapotzalco, México, D.F. 02200)

Monetary Patterns, Credit, Financiers, and Capital Accumulation in Mexico, 1970-1984

Capital accumulation in Mexico during the 1970s and 1980s was characterized by the concentration of property, income, and consumption, which in turn was directly related to the formation of powerful public and private economic-financial groups in Mexico, both national and foreign. These actors, central to Mexican development, were also responsible in part for the ensuing crisis in the pattern of accumulation. The Mexican state and the country's banks were simultaneously establishing a monetary pattern which became a determining factor both for the evolution of the economy and for the future of these financial actors. This historical, statistical, and theoretical analysis will draw information from the SPP, the SHCP, the Association of Banks, and the Mexican stock market.

Begun July 1984. Ongoing. UAM-Azcapotzalco. Publications: C. Garrido, "Las relaciones sociales económico-políticos," *Revista A* 1 (July 1982); E. Quintana et al., *Estadísticas financieras mexicanas 1978-1982* (México, D.F.: UNAM, 1983).

079. ‡Eric N. Baklanoff (Dept. of Economics and Finance, Univ. of Alabama, Box J, University, AL 35486), Jeffery T. Brannon (Dept. of Economics and Finance, UTEP, El Paso, TX 79968)
Forward and Backward Linkages in a Plantation Economy: Immigrant Entrepreneurship and Industrial Development in Yucatán

This study illuminates the special entrepreneurial and economic factors that enabled Yucatán's monocrop plantation economy to achieve a significant level of industrialization based on henequen fiber production.

Begun Jan. 1982. Completed 1984. Publication: "Forward and Backward Linkages in a Plantation Economy: Immigrant Entrepreneurship and Industrial Development in Yucatán, Mexico," *Journal of Developing Areas*, forthcoming.

080. Jeffrey L. Bortz (Dpto. de Economía, UAM-Azcapotzalco, Av. San Pablo 180, Col. Reynosa Tamps., Azcapotzalco, México, D.F. 02200)
Salaries and Employee Benefits in the Parastatal Industrial Sector

This project identifies the most important monetary fringe benefits in Mexico's principal government-owned enterprises and measures the importance of each such benefit relative to direct wages, both before and after taxes. The project draws data from primary sources such as labor contracts and payrolls.

Begun Jan. 1984. Completed 1984. Center for U.S.-Mexican Studies, UCSD.

081. Jeffrey L. Bortz (Dpto. de Economía, UAM-Azcapotzalco, Av. San Pablo 180, Col. Reynosa Tamps., Azcapotzalco, México, D.F. 02200)
Wages in Mexico

This researcher plans to write a book, aimed at the general reader, which will explain the history and problematics of wages in Mexico and will analyze the current wage structure. The work will summarize recent published and unpublished monographs, as well as articles and books.

Begun 1984. EDC 1985. SEP.

082. Maury E. Bredahl (Dept. of Agricultural Economics, 209 Mumford Hall, Univ. of Missouri-Columbia, Columbia, MO 65211)
Price Subsidies and Mexican Food Consumption

The project analyzes the impact of price subsidies on the level and composition of food consumption. The researcher has constructed a mathematical model of aggregate food consumption based on data from the 1977 Income and Expenditure Survey and plans to investigate the impacts of various price subsidies.

Begun Jan. 1984. EDC June 1985. USDA/Univ. of Missouri.

083. Michelle Chauvet Sánchez (Dpto. de Sociología, UAM-Azcapotzalco, Av. San Pablo 180, Col. Reynosa Tamps., Azcapotzalco, México, D.F. 02200)
The Nestle Co. in Jalisco

This study will analyze the degree to which foreign capital, operating through the Nestle Company, dominates Mexico's dairy production. The research will focus on determining whether Nestle, formerly a modernizing influence, has become a supporter of traditional forms of milk production; it will also attempt to show the extent to which Nestle has effected a transformation in Los Altos de Jalisco, changing the area's economic character from subsistence agriculture to livestock raising. The author hypothesizes that Nestle and similar companies do not compete in modernized milk-producing areas but rather locate where they can benefit from small-scale, unorganized dairy producers. If so, their strategy will impede the overall modernization of Mexico's dairy industry.

Begun June 1984. EDC July 1985. UAM-Azcapotzalco.

084. ‡François Lerin, ‡Laurence Tubiana, Antonio García Velázquez (IAMM, 3191 Route de Mende, 34060 Montpellier Cedex, France), Raphaël Palma (INIREB, A.P. 63, Xalapa, Ver. 91000)
A Socioeconomic and Agricultural Database for Central Veracruz

This project, a part of the LIDER program for rural economic development, involves the construction and handling of a database on the agricultural and socioeconomic characteristics of Veracruz. Using multivariable methods and automatic mapping, the researchers plan to delimit the region under study statistically and to compare it with the rest of the state and with the nation as a whole. As sources, they will combine interview and special research findings with national and regional census figures and local and institutional data.

Begun Sept. 1983. EDC 1986. INIREB/MRE-Coop./CIHEAM/INRA.

085. ‡Edgardo Lifschitz, Heliana Montserrat (Dpto. de Economía, UAM-Azcapotzalco, Av. San Pablo 180, Col. Reynosa Tamps., Azcapotzalco, México, D.F. 02200)
The Economic Structure of Present-Day Mexico

This project, which forms part of the UNAM/UAM-Azcapotzalco series of studies on oligopolistic markets and industrial networks in Latin America, deals directly with the Mexican case, interpreting Mexico's economic situation over its recent period of development and the interrelationships among its productive structures. The study's central elements include production linkages; market types; patterns of land tenure and ownership; composition of sectoral complexes as a result of the factors mentioned above; and the structure of economic power which synthesizes and articulates these factors. The results obtained will be compared to similar information regarding Argentina and Costa Rica.

Begun Jan. 1983. Ongoing. UAM-Azcapotzalco/UNAM/IIE. Publications: E. Lifschitz et al., "Programa de estudios sobre mercados oligopólicos y eslabonamientos industriales en América Latina: propuesta metodológica," mimeographed (México, D.F.: UAM-Azcapotzalco, 1983); E. Lifschitz, *La industria automotríz en México* (México, D.F.: UAM-Azcapotzalco, forthcoming).

086. Ann Lorentzen (Center for Development Research, Ny Kongensgade 9, 1472 K Copenhagen, Denmark)

Towards Technological Self-Reliance: The Development of Mexico's Capital-Goods Sector

The study investigates the development of the Mexican capital-goods sector. It discusses the conditions which have permitted the expansion of capital-goods production in Mexico, focusing primarily on local factors, particularly market conditions. It also analyzes the development of Mexico's capital-goods production, its expansion since the sixties, and the extent to which the sector's expansion represents a successful episode of import substitution. The study relates the sector's specific characteristics (relatively simple products, complex, vertically integrated production processes, and reliance on foreign technology in the initial phase of production) to the specific conditions arising from Mexico's current level (scarce supply of highly qualified labor, poor input supply, and poor technological infrastructure). Finally the study shows that substantial technological activity is taking place among Mexican-owned firms producing capital goods, despite their lack of specialization and technological sophistication.

Begun Feb. 1983. Completed 1984. Research Council of the Danish Ministry of Foreign Affairs. Publications: "The Conditions of Competition, Expansion and Technological Development: A Field Study of Selected Firms in the Mexican Industrial Machinery and Equipment Sector," CDR Project Papers D.83.3 (May 1983); "The Capital-Goods Sector in Mexico — Significance and Conditions of Development," CDR Project Papers A.84.3 (Sept. 1984).

087. Carlos Maya Ambia (Instituto de Investigaciones Económicas y Sociales, Univ. Autónoma de Sinaloa, A.P. 90, Culiacán, Sin. 80000)

The Competitive Structure of Mexico's Transformation Industry

Mexico's 1965, 1970, and 1975 industrial censuses provide the data for this analysis of the competitive structure of Mexican industry in each of 250 industrial categories. Focusing on major companies, the researcher has gathered data on capital concentration, size differentials between plants, technological discontinuities within industries, profit levels of major plants, etc. He is using these data to test the applicability of industrial organization theory and monopoly theory in the Mexican context.

Begun Nov. 1980. EDC Dec. 1984. CONACYT/UNAM/Univ. Autónoma de Sinaloa. Publications: "Indicadores de la estructura competitiva de la industria mexicana," *Ciencia y Universidad,* Nueva Epoca no. 1 (Jan.-Mar. 1983):28-68; "La estructura competitiva de la industria de bienes de capital en México," *Ciencia y Universidad,* Nueva Epoca no. 3 (forthcoming).

088. ‡Etelberto Ortiz Cruz, Hilda Rosario Dávila Ibáñez (Dpto. de Producción Económica, UAM-Xochimilco, Calz. del Hueso 1100, Col. Villa Quietud, México, D.F. 04960)
Macroeconomic Model of the Mexican Economy

Employing a heterodox methodology, this project will develop a formal macroeconomic model of the Mexican economy designed for empirical testing. In order to develop explanatory (rather than predictive) postulates about the Mexican economy, the researchers will use their model to conduct structural analyses focusing on the relationships between the capital markets and the determinants of aggregate demand. The study's hypotheses are, first, that the stagnation of the Mexican economy has its roots in the unsteady growth of the productive sectors and the absorption of their surpluses by the nonproductive sectors (commerce, finance, and government); and, second, that the behavior of the internationally linked sector and capital and investment markets is profoundly determined by their structural relationship to the growth of the nonproductive sectors.

Begun Jan. 1983. EDC Dec. 1986. UAM/CENERES-France. Publications: E. Ortiz, "Crisis financiera, crisis de un modelo de acumulación," *Economía, Teoría, y Práctica* 3 (fall 1983); E. Ortiz, G. Quiroz, and H. Dávila, *Banco de datos de la economía mexicana* (México, D.F.: UAM-Xochimilco, 1984).

089. Thomas N. S. Sterner (Dept. of Economics, Univ. of Gothenburg, Viktoriag 30, 41125 Gothenburg, Sweden)
Energy Policy in Mexico

The project is intended to study various aspects of Mexican energy policy, including the rate of expansion in oil and nuclear energy production and the effects of the oil boom on other sectors of the economy and society in general. On the demand side the study will examine the effects of pricing on energy demand, industrial structure, and the development of technology. Through a number of partly separate subprojects, the researcher will attempt to integrate the various economic aspects of the energy problem and to point out its implications for other areas of development.

Begun July 1980. Ongoing. Swedish Development Authority. Publications: "Change in Structure and Choice of Technology in Mexican Industry," *Energy Economics*, forthcoming; "Algunos problemas en el desarrollo de energéticos en México," *El Día* (Mexico City), July 1981; "Energía y créditos: presiones del extranjero," *Economía Nacional*, May 1983.

Education

090. Jorge Basurto (IIS, Torre de Humanidades II, 7° piso, UNAM, C.U., México, D.F. 04510)

Mexican Universities and Labor Unions

Labor union organization among Mexico's university employees began in 1929, but official recognition of union organization is much more recent, dating from activities in 1972 at the National University (UNAM) in Mexico City. During the last twelve years, workers have established unions in nearly all Mexican universities, and this trend has since spread to the entire academic sector. These organizations have tended to ally themselves with the independent union movement, beyond government control, and they have formed a federation of university labor unions. Because of the unions' growing influence, the government has now advanced legislation to regulate their activities and to prevent the interruption of academic programs. This research project will produce a history of unionization at UNAM after 1972 and will assess its impact on university life and its political role. National newspapers and union documents serve as information sources.

Begun 1981. EDC Dec. 1984. IIS.

091. Dennis J. Bixler-Márquez (Dept. of Curriculum and Instruction, College of Education, UTEP, El Paso, TX 79968)

A Cultural Education Program in Mexican Schools

This descriptive study will examine the origins, goals, and implementation of a cultural education program developed for elementary schools along the U.S.-Mexico border and in the Mexico City metroplex. The study gives particular attention to Mexicans' concerns about the influence of North American culture in these regions, concerns which motivated the Secretaría de Educación Pública to formulate a program designed to preserve and further Mexican culture. The interface between the cultural curriculum and the regular curriculum will be documented as it evolves gradually at Cuauhtemoc Elementary School in Cd. Juárez, Chihuahua. The development and implementation of extracurricular activities in support of the program will also be analyzed.

Begun Sept. 1983. EDC Oct. 1985. Center for Inter-American and Border Studies, UTEP. Publication: "A Cultural Education Policy for Mexican Schools along the United States Border," submitted.

092. Dennis J. Bixler-Márquez (Dept. of Curriculum and Instruction, College of Education, UTEP, El Paso, TX 79968)
The Reform of Teacher Education in Mexico

The goal of this study is to determine the impact in Mexico of the recently enacted requirement that teachers possess a *bachillerato* (college preparatory diploma) before entering a teacher-training program, where they must obtain a bachelor's degree and a teaching certificate. Since in-service teachers will also be subject to these requirements, this study also focuses on how institutions of higher education will address the demand for additional training. Particular attention is given to the role that American universities can play in meeting that demand in the border areas.

Begun May 1984. Completed 1984. Center for Inter-American and Border Studies, UTEP.

093. Beatriz Calvo Pontón (CIESAS, Casa Chata, Esq. Hidalgo y Matamoros, Tlalpan, México, D.F. 14000)
Decentralization of Teacher Education in Mexico

Strong opposition has confronted the attempts of the de la Madrid administration to decentralize upper-level teacher education as a component of the government's austerity program. This study hypothesizes that various social groups, unified in their support of the status quo in teacher education, have denied the state complete control of the educational structure. This has been the case in the past as well and explains the emergence of intense conflict in the history of normal schools whenever the state has attempted to increase its control. The researcher employs historical analysis and a model of intra-institutional conflict in this case study of a normal school, complementing the above with ethnographic and interview data.

Begun Jan. 1984. EDC Dec. 1986. CIESAS.

094. Teresa Colin (3030 Suncrest Dr., #410, San Diego, CA 92116)
The Identification of Gifted Children in Mexico

This research will explore the problem of identifying and educating gifted children in Mexico, especially since Mexico's economic and social environment is very different from that of the developed countries, which already have programs for educating gifted children underway. The research is mainly directed at determining the criteria for identifying and characterizing these children, at describing the areas of intellectual development most important for identifying such children, and at exploring some of the psychological, scholastic, familial, and social problems which may result from the lack of proper identification. The researcher is currently analyzing some of the identification procedures currently used in several countries and plans to consider the possibility of adapting them to Mexican conditions.

Begun Jan. 1983. EDC Dec. 1984.

095. ‡Erwin H. Epstein (Dept. of Applied Arts and Cultural Studies, Univ. of Missouri-Rolla, Rolla, MO 65401), José Luis Quintero Hernández (División de Ciencias de la Educación, Univ. de Monterrey, A.P. 4442, Suc. H, Monterrey, N.L.), Catherine Riorden (Dept. of Psychology, Univ. of Missouri, Rolla, MO 65401)

National Identity and Ethnocentrism among Medical Students in a Mexican University

In recent years Mexico has experienced a considerable increase in the number of foreigners, especially North Americans, who have entered that country to work or engage in formal study. This phenomenon has resulted in increased formal interaction among culturally distinct groups. The present study focuses on several aspects of this interaction in the medical school of the Universidad de Monterrey, where students from Mexico (58% of the total), the U.S. (26%), and other countries in Latin America (16%) pursue their academic programs in close, daily proximity. The researchers conducted a survey to examine especially these groups' sense of nationality and the views that they hold of their own and other cultures. The study's working hypotheses posit relationships among sense of nationality, ethnocentrism, and parents' level of education; foreign-language study, sense of nationality, and ethnocentrism; sense of nationality, ethnocentrism, and propensity to pursue professional careers in foreign countries; and amount of exposure to students of other nationalities, sense of nationality, and ethnocentrism.

Begun Aug. 1980. EDC 1985. Fulbright Foundation/Univ. of Missouri/Univ. de Monterrey.

096. Bruce Fuller (College of Education, Univ. of Maryland, College Park, MD 20742)

Mexican School Investments and Economic Growth

This inquiry into the influence of investments in Mexican schools on economic growth over the 1880-1980 period utilizes state and *municipio* data. It explores variables related to school expansion and the quality of rural and urban schools and examines economic data on capital investments and output for the agricultural and industrial sectors.

Begun Feb. 1983. Ongoing. World Bank/College of Education, Univ. of Maryland. Publication: B. Fuller, K. Gorman, and J. Edwards, "School Investments and Economic Growth in Mexico, 1880-1945," World Bank Working Paper Series (Washington, D.C.: World Bank Education Department, 1984).

097. Lawrence S. Hamilton (Dept. of Educational Psychology and Counseling, UTEP, El Paso, TX 79968)
Project UADCJ

The research components of this project are part of a larger pilot study in which 50 faculty from the Universidad Autónoma de Ciudad Juárez (UADCJ) have been enrolled in the Master of Arts program in Educational Psychology and Counseling at the University of Texas, El Paso. *Strand I* will compare test results on the Graduate Record Examination (GRE), the Prueba de Admisión para Estudios Graduados (PAEG), and the Test of English as a Foreign Language (TOEFL) to determine the efficacy of using the PAEG in place of the GRE as an admissions device for Juárez professionals. *Strand II* of the research component is designed to test an articulated Spanish-to-English instructional format over the 36 hours of course work.

Begun June 1983. EDC June 1986. UTEP/Educational Testing Service.

098. ‡Irma González Juárez, Víctor Flores Zúñiga (Dpto. de Sociología, UAM-Azcapotzalco, Av. San Pablo 180, Col. Reynosa Tamps., Azcapotzalco, México, D.F. 02200), Jorge López Castro, Enrique Quintana (INEA, Córdova 23, Col. Roma, México, D.F.)
Evaluation of a Literacy Program for Cane Cutters

This study represents the first nationwide effort to examine adult education programs designed for agricultural day laborers. It deals with a literacy program applied in various areas of sugarcane cultivation in Mexico and addresses considerations such as the manner in which the program is implemented, the characteristics of the workers involved in it, its past successes, and its acceptance within the community. An analysis of interviews with workers, supervisors, and government officials at 23 of the 70 sugar mills in Mexico will determine the potential and limitations of this educational program.

Begun Mar. 1984. EDC Dec. 1984. INEA/UAM. Publication: I. Juárez, "Los cortadores de caña en los ingenios de San Pedro y San Francisco El Naranjal, en el municipio de Lerdo de Tejada, Veracruz," *Revista Mexicana de Sociología,* Jan.-Mar. 1981.

099. Daniel C. Levy (Dept. of Educational Administration and Policy, SUNY-Albany, 1400 Washington Ave., Albany, NY 12222)
The State and Higher Education in Mexico

This exploration of the major differences between Mexico's private and public universities finds those differences crucial in terms of who pays, who governs, and who benefits. Mexico's private universities tend to be self-financed (with tuitions and business contributions), administered hierarchically (with little participation by professors and students), politically conservative, and oriented toward financially rewarding positions in private enterprise. Mexico's public universities are overwhelmingly financed by the state, administered through the participation of many actors, and politically and economically oriented toward more complex and varied ends than their private counterparts. In many fields, private universities have become more prestigious, attracting very disproportionate shares of privileged youths, and their graduates are increasingly penetrating high-level technical and economic positions within the state.

Begun Jan. 1979. EDC 1985. Mellon Foundation/Yale Program on Non-Profit Organizations.

100. Reeve Love (Dept. of Curriculum and Instruction, College of Education, UNM, Albuquerque, NM 87131)
Bilingual Education in Mexico:
An Historical and Critical Analysis

The education of Mexico's indigenous population has been an important goal of the Mexican government since the Revolution of 1910. From that time to the present, three major approaches have been promulgated: (1) direct Castilianization; (2) the use of native languages solely as a vehicle to facilitate Castilianization; and (3) the development of genuinely bilingual, bicultural, and indigenous modes of instruction. This historical analysis of the three trends will compare their goals and methodologies and explore the ways in which pedagogical practices in selected schools serving children who speak indigenous languages reflect each of the trends. Historical research is being undertaken in libraries and archives in Mexico City as well as at the University of New Mexico; the field study will be carried out in first- through third-grade classrooms in the state of Oaxaca. This study will combine ethnographic interviews with descriptive observation of classroom environments in order to determine which philosophies and goals are expressed by which groups, and which actually are reflected in the classroom.

Begun June 1984. Ongoing. Mellon Foundation/Latin American Institute, UNM.

101. Robert Miller (45 Ellenwood Ave., Los Gatos, CA 95030)
Public Primary-School Education in Mexico:
Reading Instruction in Mexico City

The purposes of this study were to describe public primary-school education in Mexico with a focus on the teaching of reading and to determine whether the curriculum as defined by the Secretaría de Educación Pública is indeed implemented in Mexico City's schools. The researcher consulted Mexican government documents for the description of the school system and the teaching of reading, and he studied 26 schools to determine attitudes and practices. A total of 300 teachers from these schools responded to a questionnaire on teaching methods, a questionnaire developed from ten focal questions used in several studies of comparative reading. The researcher observed one teacher in each school in the classroom and also interviewed the directors of the schools and the teachers observed.

Begun Sept. 1978. EDC indefinite. Publications: "Public Primary School Education in Mexico: A Focus on Reading Instruction in Mexico City (Ann Arbor, Mich.: University Microfilms, 1980); "Public Primary Reading Instruction in Mexico," in *Beginning Reading Instruction in Different Countries*, ed. Lloyd Ollila (International Reading Association, 1980); *Primary Schools of Mexico* (Los Gatos, Calif.: Paradox Press, 1982).

102. ‡Humberto Muñoz García, Rodolfo Corona Vázquez (IIS, Torre de Humanidades II, 7° piso, UNAM, C.U., México, D.F. 04510)
Human Resources at Mexico's National University

Due to a rapidly growing demand for higher education, Mexico's National University (UNAM) experienced a 130+ percent increase in the size of its academic staff between 1966 and 1977; by 1982 this group numbered nearly 25,000. This research project has undertaken the task of analyzing various features of this population so that the university may optimally employ these human resources. A census conducted among the academic staff provided information on their educational backgrounds, working conditions, and professional achievements. These data were analyzed in terms of an individual's academic degree, type of center at which employed within the university, employment activity (teaching, research, administration), etc. The historical and institutional framework of analysis relates this exceedingly complex university system to contemporary Mexican society.

Begun Oct. 1983. Completed 1984. Publication: *Censo del personal académico* (México, D.F.: Dirección General de Asuntos del Personal Académico, UNAM, 1984).

103. Jorge Padua Nesrala (CES, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
Formal and Technical Training as Contributors to Technological Development

The primary goal of this research is to relate advances in formal education and technical training to technological progress in a region experiencing explosive development. The Pacific coastal region of Mexico studied is undergoing radical transformations in its labor and productive structures, as well as in the size and structure of its population. The study analyzes labor supply and demand over the short and medium range and also relates education and technical training to technological advances, innovativeness, originality, and the links between science, technology, and the institutional bureaucracy. The study's data sources include both documents and surveys.

Begun Feb. 1983. Completed 1984. El Colegio de México/Instituto Internacional de Planificación Educacional. Publication: *La contribución de los sistemas educacionales y de capacitación a la industrialización y el progreso técnico* (México, D.F.: El Colegio de México/International Institute for Educational Planning, 1984).

104. José Luis Quintero Hernández (División de Ciencias de la Educación, Univ. de Monterrey, A.P. 4442, Suc. H, Monterrey, N.L.)
Decentralization of Mexico's Federal Educational System

The creation of the Ministry of Public Education (SEP) during the Obregón administration initiated a process of centralization of Mexican education under the control of the federal government; currently 80% of basic education is under government regulation. The present administration, however, intends to transfer the operation of this educational system to the states. The researcher has conducted a political analysis of this transfer, the government's motivations for undertaking it, and the implications of the process — both for the democratization of the political system in general, and for teachers and the educational system itself.

Begun Sept. 1983. EDC Dec. 1984. Center for U.S.-Mexican Studies, UCSD/Univ. de Monterrey.

105. ‡Marcial Antonio Riquelme (Dpto. de Sociología, UAM-Iztapalapa, Av. Purísima y Michoacán, México, D.F. 09340), Yolanda Manzoni de Riquelme (Dpto. de Sociología, Univ. Iberoamericana, Cerro de las Torres, Col. Churrubusco, México, D.F.)
Education and Employment in Mexico

The first stage of this research, based on an analysis of secondary sources, developed a theoretical framework which placed the problematics of the relationship between education and employment within Mexico's overall socioeconomic context. The subsequent phase involved surveying a stratified population sample in the *municipio* of Naucalpan, México (the second largest industrial center in the country) in order to define the links between socioeconomic strata, education, and employment. The study's working hypothesis states that, in general, the parents' social stratum is a determining factor in educational level, occupation, and salary in the group studied. If verified, this hypothesis would contradict the human capital thesis, which holds that education is a causal variable in employment, salary, and even a country's economic development. In 1985, the researchers will commence an additional phase of the project, concerned with training in the work force and labor processes in industrial plants in northern Mexico City.

Begun Jan. 1978. Ongoing. CONACYT. Publications: "Educación y empleo en el municipio de Naucalpan," *Revista Mexicana de Sociología*, 1981; "Educación y empleo: una relación cuestionable," *Revista Paraguaya de Sociología* 53 (1982).

106. María Luisa Rodríguez Sala (IIS, Torre de Humanidades II, 7° piso, UNAM, C.U., México, D.F. 04510)
The Teaching and Research Structure
in Mexico's Northern Border States

This study of personnel employed in teaching and research institutions in northern Mexico continues earlier studies in the sociology of science.

It analyzes the human resources, research and teaching programs, and achievements of each state's academic infrastructure; it also explores the impact of the economic crisis on scientific and cultural activities in the border zone and in Mexico in general. A second stage of this project will address the institutionalization of scientific activity in Mexico's border area within the framework of a study of such phenomena elsewhere in Latin America.

Begun Sept. 1983. EDC Dec. 1984. UNAM. Publications: *Características del subsistema académico en Baja California* (ANUIES/IIS/CEFNOMEX, forthcoming); "Científicos e identidad cultural en Baja California," *QUIPU*.

107. Manuel A. Sepúlveda-Stuardo (Programa de Investigación Educativa, Univ. de Monterrey, A.P. 4442, Suc. H, Monterrey, N.L.)
Analysis of Physics, Chemistry, and Math Courses in Monterrey's High Schools

Low performance levels among high-school students in physics, chemistry, and math in Monterrey, Nuevo León has become a matter of concern to educators. The present study seeks to identify factors which have contributed to this problem. These may include inadequate preparation during the elementary-school years, inadequate teaching methods, etc. The researcher will analyze teaching strategies; evaluate teacher preparation as a factor in academic performance; relate teaching load to student achievement; and measure the level of student interest in math and science courses. The study involves surveying 3000 students and 200 teachers for information on classroom methodology, teaching materials and programs, student evaluations, teacher preparation, and students' study habits, home environments, and academic interests.

Begun Jan. 1983. EDC Dec. 1984.

108. María Teresa Alicia Silva y Ortiz (ENEP, UNAM-Acatlán, Av. Alcanfores y San Juan Totoltepec, Naucalpan, Méx. 53140)
Ability Levels of Children Entering Mexican Elementary Schools

This case study of 170 children (78 boys, 92 girls) entering first grade seeks to identify these children's basic abilities in order to tailor educational programs to their needs. The research, which took place in a public school in the state of México during the 1981-82 and 1982-83 school years, noted each child's family, medical, educational, economic, and sociocultural background; it measured intelligence, maturity, motor dexterity, etc.; and it made additional observations determined by the researcher. These data are currently being analyzed.

Begun Feb. 1982. EDC June 1985. Publications: *La percepción visual en los primeros años del aprendizaje, según el programa Frostig* (México, D.F.: UNAM-Acatlán, 1983); *Batería de apoyo para la orientación* *vocacional* (México, D.F.: UNAM-Acatlán, 1984); "La política educativa para los grupos marginados (1972-1982)," *Revista Multidisciplina* 4 (1981).

109. María Socorro Tabuenca Córdoba (CEFNOMEX-Cd. Juárez, Coyoacán 3038-2, Cd. Juárez, Chih. 32300)
Children's Literature and Literacy Acquisition by Nine-to-Twelve-Year-Olds

This research seeks to determine the amount of children's literature produced in Mexico's northern border region and the access which children in this area have to such resources. It will assess the children's familiarity with textbooks, libraries, bookstores, and magazines; identify reading preferences by socioeconomic level; measure the impact of television on reading and transculturation; and identify young and adult authors in Cd. Juárez who write for this age group. The methodology includes a review of elementary textbooks and curricula; an analysis of local and national television on both sides of the border; interviews with teachers, authors, directors of social organizations and museums, and schoolboard and government officials; and surveys in city libraries and public and private schools.

Begun Oct. 1984. EDC Oct. 1985. CEFNOMEX.

110. ‡Juan Angel Torres Sánchez, Antonio Hernández Alvarado (Dirección de Prospectiva Económica, Fundación Javier Barros Sierra, Carretera al Ajusco s/n, México, D.F. 10740)
Mexico's Need for Postgraduate Scientists and Technologists, 1984-2004

This study attempts to predict Mexico's future need for holders of master's and doctoral degrees in scientific and technological fields and analyzes these personnel requirements in terms of numerical, geographical, and area-of-specialization considerations. The research analyzes past patterns of how individuals with such preparation have been incorporated into academic and research positions and assesses their contributions to Mexico's productive, educational, and research structure; it also reviews factors which may direct individuals into specific areas of postgraduate study.

Begun Dec. 1983. EDC Dec. 1984. CONACYT.

111. Kitty M. Villa (Dept. of Curriculum and Instruction, Education Bldg. 528, UT-Austin, Austin, TX 78712)
Mexico: Education for the Religious Clergy

Religious education in Mexico is greatly restricted by the 1917 Constitution. It is prohibited in primary and lower secondary schools as well as in the upper-secondary teacher-training schools. Religious education at other levels, including upper-secondary and higher education, is relegated to the "unofficial" educational system. Despite periods of rather strict enforcement of legal restrictions on religious education, the system of institutions for the education of religious clergy has persisted and even thrived. One factor contributing to the unique balance of church and governmental interests is most certainly the support of the people for religious education in Mexico. The apparent willingness and ability of the church to work within legal restrictions has also been a factor contributing to a balance of power between church and governmental interests in Mexico.

Begun Jan. 1984. EDC Dec. 1984.

History

112. †Javier Aguilar García, Lorenzo Arrieta, Fabio Barbosa, María Eugenia de Lara R., Virginia López Villegas, René Millan, Maximino Ortega Aguirre, Gerardo Pelaez, José Rivera C., Carlos Sanjuan, Sergio Yáñez (IIS, Torre de Humanidades II, 7° piso, UNAM, C.U., México, D.F. 04510)
History of the Mexican Workers Confederation (CTM), 1936-1986

This 50-year history of the CTM will detail the federation's role in Mexico's social, political, economic, and cultural life. The researchers propose that an understanding of the CTM, the principal labor organization in Mexico, is essential to understanding modern-day Mexico, especially the relations between the working class and the state. The CTM, as one of the chief pillars of Mexico's political system, is among the most extensive and complex political actors in Latin America.

Begun Jan. 1984. EDC Dec. 1985. Publication: *Historia de la Confederación de Trabajadores de México 1936-1986* (México, D.F.: Siglo XXI).

113. Maureen Ahern (Dept. of Foreign Languages, Arizona State Univ., Tempe, AZ 85287)
Spanish Narratives of the Frontier: Chronicles of the First Expeditions

This project analyzes the specific discourse features that determine the value of several works — *La relación* by Alvar Núñez Cabeza de Vaca, Fray Marcos de Niza's account of his journey to Cíbola, and the account of the Coronado expedition written by Pedro de Castañeda y Nájera — as narratives. The research questions that this project asks are: How are these stories told? And what do these discourse features in early Southwest chronicles tell us about early colonial Spanish narratives in general, and about the narrative traditions of the American Southwest in particular?

Begun 1983. EDC 1986.

114. ‡Romaine Ahlstrom (Collection Development Dept., Los Angeles Public Library, 630 W. Fifth St., Los Angeles, CA 90071), ‡Jacqueline Ann Rice (Howard Karno Books, P.O. Box 431, Santa Monica, CA 90406)
Bibliography of Mexicana at the Los Angeles Public Library

This project involves surveying the materials on or about Mexico collected by and housed at the Central Los Angeles Public Library. Although fully cited in the card catalogue, this collection is largely unknown to and overlooked by researchers. The forthcoming bibliography will define the scope of the collection and identify its many rare books and documents.

Begun Aug. 1983. EDC Dec. 1985.

115. Gustavo Juan Alarcón Martínez (Dirección de Política Laboral, UCPEET, STPS, Dr. José Ma. Vértiz 96, 1° piso, México, D.F. 06170)
The Confederación General de Trabajadores, 1921-1931

This study views the anarcho-sindicalist political tradition in Mexico as it appeared in the Confederación General de Trabajadores between 1921 and 1931. Attention is given to this union's organization, ideology, and activities.

Begun Jan. 1982. Completed 1984. STPS.

116. ‡Mario Alfonso Aldana Rendón, Javier Ruiz Briseño (IES, Univ. de Guadalajara, Liceo y Juan Alvarez, 7° piso, Guadalajara, Jal. 44280)
Capitalist Development in Jalisco during the *Porfiriato*.

The uneven development of capitalism in Mexico has led to the formation of regional economies which, although integrated into the national capitalist process, possess an internal dynamic, frequently independent of Mexico City. This study focuses on the state of Jalisco, comparing its economic development with that of other regions during the *porfiriato* and on its capital, Guadalajara, which the researchers compare with other urban centers of the period. They expect that this comparative approach will help to account for the dynamic productive activity of this region during the Díaz era. Their sources comprise state and municipal archives and libraries, government and legal documents, newspapers, the Archivo General de la Nación, and others.

Begun Jan. 1981. EDC Mar. 1985.

117. ‡Mario Alfonso Aldana Rendón, Javier Ruiz Briseño (IES, Univ. de Guadalajara, Liceo y Juan Alvarez, 7° piso, Guadalajara, Jal. 44280)
Indigenous Rebellions and Land Struggles in Jalisco, 1821-1870

This project has analyzed the process by which communal landholding patterns disappeared in rural Jalisco between 1821 and 1870. The encroachment of private, capitalist forms of property ownership on regional economies occasioned the destruction of traditional communal holdings, particularly in areas such as Guadalajara, which underwent intense modernization. Community disintegration occurred more rapidly in such cases than in areas marked by a weaker capitalist influence, such as northern Jalisco and the Sierra of Nayarit. In these latter instances, landholding patterns underwent a long and violent period of transition. The researchers consulted state archives and libraries for legal and government documents and other pertinent sources.

Begun Aug. 1982. Completed 1984. Univ. de Guadalajara. Publications: *Desarrollo económico de Jalisco, 1821-1940*, Colección Aportaciones (México, D.F.: Univ. de Guadalajara, 1978); *Jalisco durante la república restaurada, 1867-1877*, Colección Aportaciones (México, D.F.: Univ. de Guadalajara, 1981-83); *La rebelión agraria de Manuel Lozada, 1873* (México, D.F.: Sep/Ochentas, 1983).

118. Arturo Alvarado Mendoza (CES, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
The Border Socialist Party and *Portesgilismo* in Tamaulipas

This study focuses on Emilio Portes Gil's establishment of a political party in Tamaulipas during the era in which the oil enclave boosted the state's productive activities. These activities, in turn, transformed the region's economic and social structure, as well as its patterns of local domination and the relationship between regional and national political life. At the same time, a peasant league controlled by Portes Gil was agitating for agrarian reform. The study's central hypothesis states that the creation of the Border Socialist Party, which later led him to the state's governorship, consolidated Portes Gil's leadership and permitted the peaceful and stable implementation of agricultural and labor reforms. These reforms reinforced both regional hegemony and Portes Gil's leadership. The researcher is reviewing materials from newspaper files, state and national archives, and the Emilio Portes Gil Archive, in addition to conducting personal interviews.

Begun May 1982. EDC Sept. 1985. El Colegio de México/Univ. Metropolitana/Center for U.S.-Mexican Studies, UCSD.

119. Timothy E. Anna (Dept. of History, Univ. of Manitoba, Winnepeg, Manitoba, R3T 2N2, Canada)
Mexico after Independence, 1821-1833

This study of political transformation in post-independence Mexico will trace Mexican politics from the Iturbide monarchy and the administrations of Guadalupe Victoria, Vicente Guerrero, and Anastasio Bustamante through the election of Santa Anna in 1833. The research will focus principally upon the process of state-building in the wake of independence, and it will emphasize the broad challenge of transforming inherited colonial institutions into the apparatus of an independent state. The researcher has discovered considerable new material on the Iturbide administration, as well as on the presidential administrations and the interim period of government by junta or Congress. Primary research derives principally from the Archivo General de la Nación, Mexico City; the Benson Latin American Collection, University of Texas at Austin, and the Instituto Nacional de Antropología e Historia, Mexico City.

Begun July 1983. Ongoing. SSHRC, Canada/Univ. of Manitoba/Rh Institute of Winnipeg.

120. ‡Renate Bartl, ‡Barbara Goebel (Institut für Völkerkunde, Schellingstrasse 33/I, Univ. of Munich, 8000 Munich 40, Federal Republic of Germany)
The Calendars of Fray Bernardino de Sahagún:
A Critical Analysis of the Sources

This research describes, orders, and interprets the calendars in the manuscripts of Fray Bernardino de Sahagún. The researcher has attempted to identify the traditions behind these calendars, using the following sources: *Primeros memoriales, Memoriales en tres colunmas*, and the *Códices Florentino* and *Tolosano*.

Begun Nov. 1982. Ongoing.

121. Jean-Pierre Bastián (CEH, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
Protestantism in Mexico, 1872-1920

This study addresses the reasons why and the means by which a set of religious beliefs exogenous to Mexican society entered certain sectors of the population and were absorbed. The religious dissent expressed by this Protestant influence contradicted the dominant values associated with Catholicism. Moreover, this religious dissent reflected a deeper discontent, which caused those population sectors converted to Protestantism to become political opponents of the *porfiriato* and later to become militant participants in the constitutionalist movement. The imported Protestantism was nationalized and contributed to the formation of the new Mexican identity arising from the Revolution. This study draws evidence from Mexican and U.S. Protestant church records as well as from the Porfirio Díaz Archives at the Universidad Iberoamericana and the Carranza Archives at CONDUMEX in Mexico City.

Begun Mar. 1982. EDC June 1986. Publications: "Metodismo y clase obrera durante el porfiriato," *Historia Mexicana* 129 (1983):39-71; "Los propagandistas del constitucionalismo en México (1910-1920)," *Revista Mexicana de Sociología*, Apr.-June 1983, pp. 321-351; *Protestantismo y Sociedad en México* (México, D.F.: Casa Unida de Publicaciones, 1983).

122. Jorge Basurto (IIS, Torre de Humanidades II, 7° piso, UNAM, C.U., México, D.F. 04510)
Mexican Unionism from Cárdenas to Alemán

Following a parallel study of the relationship between labor organizations and public power during the Lázaro Cárdenas administration, the present study focuses on the same relationship during the administrations of Manuel Avila Camacho (1940-1946) and Miguel Alemán (1946-1952). The Avila Camacho period served as a transition between Cárdenas's populism and the new goal of the Mexican Revolution, accelerating the process of capital accumulation and concentrating income in the hands of the bourgeoisie. Nevertheless, Avila Camacho still appeared as a mediator between the various factors of production, while Alemán, the first civilian president, abandoned the policy followed by his predecessors and decidedly backed capital. Employing force, he crushed labor's efforts to organize independently of the government in order to assure smooth sailing for both national and foreign businessmen. As a result of his policies, the Confederación de Trabajadores de México has remained the predominant force in Mexico's labor movement, and democratic practices have disappeared from the labor union arena.

Begun June 1977. Completed 1984. Publication: *Del avilacamachismo al alemanismo*, Serie La Clase Obrera en la Historia de México, 11 (México, D.F.: Siglo XXI, forthcoming).

123. Jan Bazant (CEH, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
Antonio Haro y Tamariz (1811-1869)

This biographical study of Antonio Haro y Tamariz, a 19th-century Mexican politician, draws on both archival material and information provided by his descendants.

Begun 1979. Completed 1984. El Colegio de México. Publications: *Cinco haciendas mexicanas* (México, D.F.: El Colegio de México, 1975); *Los bienes de la Iglesia en México (1856-75)*; *A Concise History of Mexico from Hidalgo to Cárdenas, 1805-1940* (New York: Cambridge Univ. Press, 1977).

124. Socorro Benítez Guevara (CIH, Univ. Veracruzana, A.P. 369, Xalapa, Ver. 91000)
The Hacienda Lucas Martín

This project attempts to reconstruct the economic and political history of the hacienda Lucas Martín, located 5 km. north of Xalapa, Veracruz. The researcher documents the hacienda's origin, development, and consolidation from the colonial period to the mid-twentieth century, giving special attention to its disintegration, which was brought about by the agrarian reform and peasant demands for land.

Begun 1978. Completed 1984.

125. Mirna Alicia Benítez Juárez (CIH, Univ. Veracruzana, A.P. 369, Xalapa, Ver. 91000)
The Petroleum Workers' Union and Labor Struggles in Veracruz, 1927-1936

The goal of this research is to interpret the organizational structure prevailing among oil refinery workers between 1927 and 1936 in Veracruz and southern Tamaulipas.

Begun June 1984. EDC Dec. 1985. Publications: "Estado, petróleo y clase obrera en Veracruz: 1918-1928" (Paper presented at the Primer Encuentro sobre Historia del Movimiento Social en México: 1918-1934, Xalapa, Ver., Dec. 1981); "Organización y lucha sindical de los petroleros en Veracruz, 1918-1928" (Bachelor's thesis, Univ. Veracruzana, 1983).

126. Janet H. Berenda (Dept. of History, C-004, UCSD, La Jolla, CA 92093)
A Comparative Study of the Roles of Women in New Spain's Northern Frontier Settlements, 1598-1776

The purpose of this dissertation is to present a study of the roles that Spanish women played in establishing colonies along New Spain's northern frontier. The Spanish Crown's perception of women as settlers changed as policies shifted and the motivation for settlement moved from entrepreneurial to defense and buffer-type colonization. Based on the recurring theme in Spanish colonial life of the strong, enduring family, this study seeks to discover whether the family prevailed on the northern frontier and, if so, why no colony emerged as a "Spain in microcosm." Case studies are based on documentation for Nuevo México and Alta California.

Begun Apr. 1984. EDC indefinite. Hill Fellowship.

127. Charles Julian Bishko (Dept. of History, Univ. of Virginia, Charlottesville, VA 22903)
The *Mesta* System of Livestock Administration in Sixteenth-Century Mexico

This project extends into colonial Mexico a general investigation of the Spanish *mesta* organization for the regulation of proprietary rights in livestock and pastureland use. However, it breaks with the current Miranda-Dusenberry theses concerning a Novohispanic counterpart to the Castilian Mesta Real. It focuses, rather, on the structuring and history of the type of independent regional *mesta* promoted by viceregal regimes in the provincial capitals of the Audiencia Mexicana. The study will proceed from a careful analysis of several elements that lead to an understanding of the Mexican *mesta:* Licenciado Loaisa's redaction of Mexico City's *Ordenamiento de Mesta* (1537); the development of the Mendozan system of municipal-provincial *mestas;* the crisis of the system in the mid-sixteenth century (with particular reference to the pastoral reform movement at Puebla de los Angeles); and the compilation and objectives of Viceroy Enríquez's *Ordenanzas de Mesta* of 1574. This study aims to supply a corrective, in-depth survey of the juridical and institutional functioning of the Mexican *mestas* as agencies of the government's social and economic control in the pastoral sector. It also examines the experience of the Mexican *mesta* as a role model for the *recopilaciones* of *derecho indiano* in the sixteenth and seventeenth centuries.

Begun 1981. Ongoing.

128. Carlos Bosch-García (IIH, Torre de Humanidades I, 8° piso, UNAM, C.U., México, D.F. 04510)
Maritime Empires and the Spanish Language

The Americas served as magnet for three cycles of global navigation. This project examines the Catalonian and Portuguese maritime empires and their impact on the Spanish language.

Begun 1983. EDC Dec. 1984. Publication: *Documentos de la relación entre México y los E.U.* (México, D.F.: Instituto de Investigaciones Históricas, UNAM, 1983).

129. ‡Frederick P. Bowser, ‡Margaret Chowning (Dept. of History, Stanford Univ., Stanford, CA 94305)
The Privileged Classes of Michoacán, 1649-1910

This project analyzes the composition and evolution of the privileged classes of the state of Michoacán from Hapsburg times to the 1910 Revolution. Based primarily on notarial and other legal records, it emphasizes economic and political change in relation to elite membership.

Begun Jan. 1980. Ongoing. SSRC/NEH.

130. ‡Jeffery T. Brannon (Dept. of Economics and Finance, UTEP, El Paso, TX 79968), ‡Gilbert Joseph (Dept. of History, Hamilton Hall 070 A, Univ. of North Carolina, Chapel Hill, NC 27514)
Essays in Regional Studies:
A Social History of Yucatán, 1750-1940

The goal of this project is to compile a series of ten to twelve original essays by scholars from diverse disciplines that treat the changing relations of land, labor, and capital in the Yucatán region from 1750 to 1940. The researchers hope, through the essays, to relate the development of this relatively isolated region to that of the rest of Mexico and Latin America as a whole.

Begun June 1981. EDC Dec. 1985.

131. Jonathan C. Brown (Dept. of History, Garrison 101, UT-Austin, Austin, TX 78712)
The Foreign Oil Companies in Mexico

This history of the entry and operation of foreign oil companies in Mexico from 1901 to 1930 will deal with marketing, exploration, production, labor, and politics.

Begun Jan. 1980. Ongoing. ACLS/NEH. Publication: "Jersey Standard and the Politics of Latin American Oil Production, 1911-1930," in *The National Oil Companies of Latin America*, ed. John D. Wirth (Lincoln: Univ. of Nebraska Press, 1984).

132. ‡María Elvira Buelna Serrano, ‡Alejandra Herrera Galván, ‡Edelmira Ramírez Leyva (División de Humanidades, UAM-Azcapotzalco, Av. San Pablo 180, Col. Reynosa Tamps., Azcapotzalco, México, D.F. 02200)
The Banning of Books during the Inquisition

This project will catalog books, pamphlets, and papers banned by the Inquisition in colonial New Spain. The researchers will include biographical information about the authors of the banned materials and the bases on which these works were banned, as well as indices of titles, authors, translators, illustrators, prefacers, publishers, etc. This catalog is intended as a guide to the diachronic and synchronic study of thought during three centuries in colonial New Spain.

Begun Dec. 1983. EDC Dec. 1985. UAM-Azcapotzalco/Fondo Ricardo J. Zevada. Publications: A. Herrera Galván and D. Bravo, comps., *El Señor Inquisidor Fiscal de este Santo Oficio Contra Ana Rodríguez y Aramburu, española, por ilusa, afectadora de santos falsos milagros y revelaciones divinas* (México, D.F.: Instituto Nacional de Bellas Artes/UAM, 1984); E. Ramírez Leyva, *Persuación, violencia y deleite en un sermón barroca del siglo XVIII* (México, D.F.: UAM, forthcoming).

133. Leon G. Campbell (Dept. of History, UCR, Riverside, CA 92521)
Resistance and Rebellion in 18th-Century Mesoamerica and Andean America

This study of domestic resistance and rebellion against the colonial governments of New Spain, New Granada, Peru, and the Río de la Plata during the last half of the eighteenth century involves the compilation and analysis of primary and secondary source materials. It forms part of a larger project which analyzes the root causes, internal dynamics, and consequences of domestic revolt and rebellion in Spanish America during the late colonial period.

Begun summer 1984. EDC indefinite. UC Intramural Research Grant.

134. Barry Carr (History Dept., La Trobe Univ., Bundoora, Victoria, Australia, 3083)
The Contours of Mexican Communism and Marxism, 1940-1982

This study examines the development of Marxism and Communism in Mexico from 1940 until the formation of the United Mexican Socialist Party (PSUM) in late 1981. It includes a discussion of the evolution of the institutional base of Marxism and Communism; an examination of the sociology of the Mexican Communist Party; a study of the tactical and strategic evolution of Marxist parties and especially of their changing characterizations of the Mexican Revolution and the nature of the Mexican social formation; and a discussion of the evolution of Marxist thought and the dissemination of Marxist culture during the period. Part of the investigation centers around the regional experience of the Mexican Communist Party from the early thirties until 1981. The project has employed interview materials, participant observer experiences, extensive archival research, and a detailed review of the press, internal documents, and congress debates (etc.) of the Mexican Communist Party, the Mexican Worker Peasant Party (POCM), and other groups.

Begun 1979. EDC 1985. La Trobe Univ./Center for U.S.-Mexican Studies, UCSD. Publications: "Impresiones del 19 Congreso del Partido Comunista Mexicano," *Cuadernos Políticos* 29 (Aug.-Oct. 1981):33-92; "The Development of Communism and Marxism in Mexico: A Historiographical Essay," in *Los intelectuales y el estado mexicano* (México, D.F.: El Colegio de México, forthcoming).

135. Mario Cerutti (Facultad de Filosofía y Letras, Univ. Autónoma de Nuevo León, A.P. 3024, Monterrey, N.L. 64000)
Regional Bourgeoisie, Markets, and the Nation-State in the Nineteenth Century: Monterrey and its Economic Domain

Based on earlier studies about the formation of Monterrey's entrepreneurial class, the accumulation of its initial capital, and the industrial growth of the city between 1850 and 1910, this research will relate these phenomena to the problematics of markets per se. The development of Monterrey's entrepreneurial class resulted, on the one hand, from an increase in consumption and from the integration and growth of Mexico's market for nonconsumption goods — money, labor, land, and capital goods — which followed the consolidation of the nation-state. On the other hand, investments in manufacturing and mining beginning in 1890 indicate a second possible stimulus: the North American market (since the industrial Northeast and Texas fell within the range of Monterrey's industrialists). This project, which is based on primary data, complements previous studies by the researcher.

Begun Jan. 1984. EDC Dec. 1985. Univ. Autónoma de Nuevo León. Publications: *Economía de guerra y poder regional en el siglo XIX* (Monterrey: Archivo General del Estado de Nuevo León, 1983); *Burguesía y* *capitalismo en Monterrey (1850-1910)* (México: Claves Latinoamericanas, Univ. Autónoma de Nuevo León, 1983); *El siglo XIX en México: cinco procesos regionales* (México: Claves Latinoamericanas, Univ. Autónoma de Nuevo León, forthcoming).

136. ‡Ricardo Corzo Ramírez, J. González Sierra, David Alan Skerritt
(CIH, Univ. Veracruzana, A.P. 369, Xalapa, Ver. 91000)
Biography of General Cándido Aguilar (1889-1960)

This biography of Gen. Cándido Aguilar will include an analysis of his socialization as a revolutionary leader and his governorship of Veracruz, as well as a close examination of how the pre-revolutionary and revolutionary contexts stimulated and conditioned his public actions. Documentary sources, personal archives, newspaper files, and interviews provide the data for this analysis.

Begun Nov. 1983. EDC Dec. 1984. Univ. Veracruzana/El Colegio de México/State of Veracruz.

137. José Cuello (Dept. of History, 300 Coughlin Hall, Marquette Univ., Milwaukee, WI 53233)
Local Society on the North Mexican Frontier:
Saltillo in the Seventeenth Century

This doctoral dissertation now being expanded into book form analyzes colonial Saltillo and its environs, where agriculturalists produced wheat and maize for the northern mining markets. The work's themes include the conquest of the Mexican Northeast, the founding of Saltillo and San Esteban de la Nueva Tlaxcala, early Spanish prosperity, and relations between Saltillo and San Esteban. The study also covers population trends in the Valley of Saltillo, the economic involution of Hispanic society, the formation of a traditional societal pyramid, land-tenure patterns, the integration of the northeastern hunter-gatherers into Hispanic society, and the vicissitudes of local government.

Begun Jan. 1975. Ongoing. Publications: "Beyond the 'Borderlands' in the North of Colonial Mexico: A Latin Americanist Perspective to the Study of the Mexican North and the United States Southwest," *Proceedings of the Pacific Coast Council of Latin American Studies* 9 (1982):1-24; "The Myth of the North Mexican Hacienda," submitted.

138. Gabriella de Beer (Dept. of Romance Languages, CCNY, 138th St. & Convent Ave., New York, NY 10031)
Luis Cabrera: The Role of an Intellectual
in the Mexican Revolution

This study focuses on the career of Luis Cabrera, a genuine humanist, a prolific writer, and a complex literary and political figure. An intellectual activist of the Mexican Revolution of 1910 from the time of its inception to the post-revolutionary period, he published widely in the newspapers and journals of his era. These writings, which span about half a century, are important contributions to both political thought and the Mexican essay.

Begun Sept. 1979. Completed 1984. PSC-CUNY. Publication: *Luis Cabrera: un intelectual en la Revolución Mexicana* (México, D.F.: Fondo de Cultura Económica, forthcoming).

139. Gabriella de Beer (Dept. of Romance Languages, CCNY, 138th St. & Convent Ave., New York, NY 10031)
The Intellectual Relationship and Interdependence of Pedro Henríquez Ureña and Alfonso Reyes

This project examines the close intellectual relationship and interdependence of Pedro Henríquez Ureña and Alfonso Reyes through their correspondence, which is housed in the Casa-Museo Alfonso Reyes in Mexico City. These letters show not only the vast erudition and extraordinary talent of these two humanists, but also a unique fusion of two minds and spirits. A detailed analysis of their correspondence reveals a true dependence on one another for advice, encouragement, and constructive criticism.

Begun July 1982. Ongoing. NEH/PSC-CUNY.

140. Patricia E. Fernández de Castro Martínez (Dept. of History, UT-Austin, 4501 Rowood Rd., Austin, TX 78722)
Federalism in Zacatecas, 1821-1833

The state of Zacatecas, along with Jalisco, was one of the stronger and more consistent proponents of federalism as a form of government in the immediate post-independence period. In fact, several of the reforms proposed in 1833 by Vice President Valentín Gómez Farías (himself a former representative of Zacatecas to the general Congress) had their origins in reforms proposed by the state earlier. This project will examine the social forces outside Mexico City that helped to bring about independence from Spain and which subsequently demanded a share of power. The researcher is also planning an analysis of the social characteristics of federalist Zacatecans in order to understand better the dynamics of their political movement.

Begun Jan. 1984. Ongoing. UT-Austin.

141. Luz Elena Galván (CIESAS, Casa Chata, Esq. Hidalgo y Matamoros, Tlalpan, México, D.F. 14000)
The Socioeconomic Condition of Teachers during the *Porfiriato*

Within a broad framework which encompasses public education between 1867 and 1910, the study examines the role of teachers from the government's point of view, as well as the social conditions of these teachers. This research focuses specifically on the socioeconomic and political status of rural and urban primary-school teachers from 1908 to

1910, immediately prior to the Mexican Revolution. The economic, political, and social panorama of this period provides the context for understanding teachers' responses to their socioeconomic situation. The principal hypothesis holds that during the *porfiriato* educational decentralization was achieved and that the majority of teachers belonged to the middle class. The researcher utilizes the methodologies of social history in interpreting information from the Porfirio Díaz Collection and the AGN.

Begun Jan. 1984. EDC Dec. 1986. Publications: *De educadoras y educados: antología* (México, D.F.: Univ. Iberoamericana, 1984); "Decentralización educativa durante el porfirismo," mimeographed (1984); "Ubicación del magisterio dentro de las clases sociales en México durante el porfirismo," mimeographed (1984).

142. Bernardo García Martínez (CEH, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
An Ecological History of Mexico

This study of Mexico's physical environment, based on documents dating from the conquest to the present, gives special attention to the development of microclimates and the evolution of wild flora and fauna. It also includes an historical examination of scientific studies by geographers, biologists, etc., and of the cultural effects of ecological changes such as erosion and the construction of waterworks.

Begun Jan. 1984. Ongoing.

143. Carlos B. Gil (Dept. of History, DP-20, Univ. of Washington, Seattle, WA 98195)
Massacre at Tlatelolco:
Notes for a Literature Review

This research reviews mostly Spanish-language publications focusing on the 1968 massacre of students and their supporters by Mexican soldiers at Tlatelolco (the Plaza of the Three Cultures) in Mexico City. As a preliminary to a broader study of the massacre, the researcher has selected a handful of books and articles little known among English-language readers and conducted a comparative analysis of their treatment of the subject.

Begun Jan. 1983. Completed 1984. Stanford-Berkeley Fellowship for Northwest Historians/NEH.

144. Carlos B. Gil (Dept. of History, DP-20, Univ. of Washington, Seattle, WA 98195)
Mexico: State and Region during the *Porfiriato*,
1876-1911

This investigator searches the Porfirian era for a coherent and consistent explanation for Mexico's exceptional periods of economic and political development, best seen in the middle of the 20th century. He will attempt to define what we know about Mexican development during these years, especially what sectors and what regions actually develop. The study will also explore whether such development is uniform throughout the country and attempt to explain its findings.

Begun Mar. 1984. EDC Jan. 1985. Publication: "Mexico: State and Region During the Porfiriato, 1876-1911," in *The History of State and Region in Latin America,* eds. Raymond Buve and Leo Hagedoorn (Cologne-Vienna: Böhlau Verlag, forthcoming).

145. ‡Alicia Gohman, Gloria Carreño (ENEP, UNAM-Acatlán, Av. Alcanfores y San Juan Totoltepec, Naucalpan, Méx. 53140)
The Jews in Mexico

This history of the Jews in Mexico examines their political, social, cultural, and economic role in the development of the country. Basing their investigation on oral histories, the AGN, and the archives of the Ministry of Foreign Affairs, the researchers hypothesize that Mexico's Jewish minority has had a much larger role than historians have recognized, having participated in all areas of common life.

Begun Jan. 1980. EDC Dec. 1985. Publications: *The Immigration of Jews from Damascus and Alepo to Mexico* (México, D.F.: El Colegio de México, 1982); "Primeros pasos para establecer una comunidad judía en México," *Mijael* (Tel Aviv), 1983.

146. Richard Griswold del Castillo (Dept. of Mexican American Studies, SDSU, San Diego, CA 92115)
The Treaty of Guadalupe:
Legal Implications and Historical Interpretations

This historical investigation of the legal history of the Treaty of Guadalupe Hidalgo involves research in law libraries and archives and seeks to determine the effects of this treaty on U.S.-Mexican affairs. The study will include interpretations of the treaty by U.S. and Mexican scholars and courts.

To begin Dec. 1984. EDC indefinite. SDSU. Publications: "Botiller vs. Domínguez: The Treaty and the Law," unpublished; "Changing Views of the Treaty of 1898: Guadalupe Hidalgo through History," unpublished.

147. Daniela Grollová (CIESAS, Casa Chata, Esq. Hidalgo y Matamoros, Tlalpan, México, D.F. 14000)
Socialist Parties of Southeastern Mexico

Among the various alternatives created in post-revolutionary Mexico for mass-level organizations, government organizations, and social relations, the socialist parties were very important. This study will attempt to document the appearance, persistence, and decline of these parties during the 1920s, as well as to explore the ways in which the Alvaro Obregón and Plutarco Elías Calles administrations defined both the potential and the limits of this political option. Based on national and local archival sources, the study includes the states of Chiapas, Campeche, and Yucatán.

Begun Mar. 1983. EDC 1986. CIESAS.

148. ‡María del Rocío Guadarrama Olivera, Cristina Rascón Martínez (Dpto. de Estudios Políticos, El Colegio de Sonora, Obregón 54, Hermosillo, Son. 83000)
A Contemporary History of Sonora, 1929-1980

This study addresses the economic, social, and political history of Sonora, with particular emphasis on the political movements and forms of organization which paralleled the growth of capitalist agriculture in the state's coastal valleys. The processes of migration, the composition of the original groups of petitioners for land redistribution, and the struggles over land and the means of production are also considered. This historical reconstruction, built basically on archival sources, draws information from bibliographic, newspaper, and interview sources as well.

Begun Sept. 1982. Completed 1984.

149. Stephen Haber (Dept. of History, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024)
The Industrialization of Mexico, 1880-1940

This study hypothesizes that Mexico's post-1940 industrial takeoff actually has its roots in the late nineteenth century. Much of the installed plant and equipment responsible for the boom which occurred during the Second World War dates from the *porfiriato*. This study examines the structural transformation of Mexico's industrial sector during the *porfiriato*, then analyzes the effects of the Revolution, the political turmoil of the 1920s, and the Great Depression on this Porfirian industrial plant. Sources for the research include the records of the Departamento de Trabajo, the Secretaría de Hacienda, and the Ministerio de Fomento, as well as Banco de México reports, financial publications, private and corporate archives, and interviews. The study will include detailed time series on wages, employment, profits, rates of return to investments, production, and productivity for the most important industrial enterprises of the period.

Begun June 1982. Ongoing. Fulbright Foundation/Center for U.S.-Mexican Studies, UCSD.

150. Errol D. Jones (Dept. of History, Library 227, Boise State Univ., Boise, ID 83725)
A History of the Electric Power Industry in Mexico, 1880-1980

This project studies the development of the electric energy industry in Mexico from its inception in the 1880s to the present. It focuses on the development of the industry through foreign capital, the emergence of organized labor in the industry, and government regulation and the creation of the Comisión Federal de Electricidad. It also documents the events and forces leading to nationalization of the industry, the role of the Tariff Commission, government-labor relations, and the growth and expansion of Mexico's installed electrical capacity since nationalization in 1960; the researcher may also emphasize the role of cost factors and debt financing of electric power development. Sources include Mexican presidential papers in the AGN, company records of the American & Foreign Power Co. and the Compañía Mexicana de Luz y Fuerza Motriz, publications of the various government entities concerned with electric power generation, newspapers, union files and publications, and interviews.

Begun Sept. 1983. EDC Aug. 1987. NEH/Boise State Univ. Publication: "American & Foreign Power Company in Mexico: From Euphoric Optimism to Nationalization, 1942 to 1960," *Proceedings of the Rocky Mountain Congress of Latin American Studies*, 1984.

151. J. Jorge Klor de Alva (Dept. of Anthropology, SUNY-Albany, 1400 Washington Ave., Albany, NY 12222)
The *Coloquios* of Sahagún:
The Christian Image in Aztec Thought

Building on previous related studies of colonial Aztec (Nahua) religion, this project will center on the nature of Spanish-Nahua religious discourse. In particular, it will lead to the publication of a critical edition of Sahagún's 1564 *coloquios* manuscript, in which he and his native assistants reproduced the 1524 religious debates between the first twelve Franciscan friars who arrived in New Spain and Nahuatl-speaking indigenous leaders. The monograph will include a revision of the researcher's 1980 translation of the Nahuatl text, which is being completed in consultation with James Lockhart and Frances Karttunen; it will also contain a series of studies dealing with various aspects of the work and its context and a facsimile of the original manuscript.

Begun Mar. 1984. EDC Sept. 1985. Institute for Mesoamerican Studies, SUNY-Albany. Publication: *The* Coloquios *of Sahagún: The Christian Image in Aztec Thought* (Albany, N.Y.: Institute for Mesoamerican Studies, forthcoming).

152. J. Jorge Klor de Alva (Dept. of Anthropology, SUNY-Albany, 14000 Washington Ave., Albany, NY 12222)
Colonial Aztec Spirituality and the Manuals
for Confessors of Indians

This two-part project begins with an analysis of Aztec (Nahua) spirituality during the colonial period; the analysis focuses on the nature of colonial Indian religiosity as something different from syncretism; that is, it examines the *colonial* forms of native spirituality and therefore draws evidence both from indigenous sources and bilingual (Nahuatl-Spanish) religious literature. The second part of the project involves publication of a facsimile of the 1599 *Confesionario en Lengua Mexicana y Castellana* of Juan Bautista. This phase of the research will include a general study of the manuals for confessors of Nahuatl-speaking Indians and an analysis of Juan Bautista's text (including notes and commentary).

Begun Aug. 1983. EDC Dec. 1985. SUNY-Albany. Publications: "The Pattern of Religious Syncretism in the Great Traditions: The Aztecs and Christendom," in *South and Mesoamerican Native SPirituality, World Spirituality: An Encyclopedic History of the Religious Quest*, vol. 4, gen. ed. E. Cousins (New York: Crossroad, forthcoming); *Juan Bautista: Confessionario en Lengua Mexicana y Castellana, 1599* (México, D.F.: UNAM, forthcoming).

153. J. Robert Knowlton (History Dept., UW-Stevens Point, Stevens Point, WI 54481)
The Impact of 19th-Century Liberal Legislation on Civil Corporate Property

Nineteenth-century liberals attacked corporate property, ecclesiastical and civil. This project examines the reformers' acts against civil corporate property in various parts of Mexico, and it attempts to explain how efforts to impose individual proprietorship affected villages and municipal ejidos.

Begun 1976. Ongoing. Center for Latin America, UW-Milwaukee/UW-Stevens Point. Publication: "La individualización de la propiedad corporativa civil en el siglo XIX — notas sobre Jalisco," *Historia Mexicana* 28:1 (1978).

154. Viola König (Rautenstrauch Joest Museun, Ubierring 45, 5000 Köln 1, Federal Republic of Germany)
The Ramo Civil No. 669 of the AGN

This research involves the transcription of ethnohistorically relevant sections of the Ramo Civil No. 669 of the Archivo General de la Nación. This document, written shortly after the Spanish conquest of the Mixtecs of Oaxaca, contains a *pleito* (dispute) before the new Spanish judge of the Mixteca Baja. The dispute involved the struggle of two Mixtec caciques for control of their home town. The large number of witnesses' depositions in this archive reveal important details about Mixtec society before the conquest.

Begun Dec. 1980. Ongoing.

155. Karl B. Koth (Dept. of History, Univ. of Manitoba, Winnipeg, Manitoba R3T 2N2, Canada)
Teodoro A. Dehesa and Porfirio Díaz: Veracruz in the *Porfiriato*, 1892-1911

This thesis examines the relationship between Mexico's central government and the state of Veracruz between 1892 and 1911 and focuses on the role of Teodoro A. Dehesa, governor of Veracruz and one of the most important politicians in the Porfirian regime. A loyal personal friend of President Díaz, Dehesa was an honest, farsighted, and generous governor. While dedicated to Mexican liberalism, he was also sympathetic to the plight of indigenous Mexicans and understood clearly the labor question. His ideas and actions predictably brought him into conflict with Díaz and the *científicos*. Personally popular throughout Mexico, Dehesa's candidacy for vice-president in 1910 was acceptable to both Madero and Vázquez Gómez; through Dehesa's mediation, Madero was able to meet with Díaz in 1910. This work examines the praxis and the limits of this governor's actions, and it illustrates the powerful influences which blocked his attempts at a liberalization of the regime in an effort to avoid revolution.

Begun Oct. 1983. Ongoing. SSHRC, Canada.

156. David G. LaFrance (CIHS/ICUAP, Univ. Autónoma de Puebla, M. Avila Camacho 208, Puebla, Pue. 72000)
Communication and Transportation in Puebla and Tlaxcala, 1847-1917

This project will examine the nature and impact of changes in the means of communication and transportation in the Puebla-Tlaxcala region. It will rely primarily on local archives to determine which individuals and groups encouraged, implemented, and benefited from advances in this key area of economic development.

Begun Jan. 1983. EDC 1986.

157. ‡Luis Leal (Center for Chicano Studies, UCSB, Santa Barbara, CA 93106), ‡Giorgio Perissinotto (Dept. of Spanish and Portuguese, UCSB, Santa Barbara, CA 93106)
A Computer-aided Concordance of Early Chroniclers of Mexico

This research will involve processing the works of Hernán Cortez, Bernal Díaz del Castillo, and Bartolomé de las Casas on an IBM-PC and to devise or adapt an existing program to produce a concordance of the authors in question. A concordance of this type (an alphabetical list of *all* the words in a book or the works of an author with their immediate contexts) would be a powerful tool for the scholar working on colonial Mexico. A pilot concordance to test the program will be completed by 1985, with a full concordance soon to follow.

Begun Apr. 1984. Ongoing. Center for Chicano Studies, UCSB/UC MEXUS.

158. Martha Loyo Camacho (Dpto. de Sociología, UAM-Azcapotzalco, Av. San Pablo 180, Col. Reynosa, Tamps., Azcapotzalco, México, D.F. 02200)
Development of the Mexican Bourgeoisie, 1850-1910

This study focuses on the transformation in the latter half of the 19th century of a fraction of Mexico's landowning class into an emerging national bourgeoisie. Public and private archives serve as the source of information on three previously unstudied provincial families owning haciendas during this period. The researcher plans to analyze each case to determine the structure of landholdings, the mechanisms for appropriating surpluses, the impact of the Mexican Revolution, and the linkages between each family and the local and national power structure.

Begun Nov. 1982. Ongoing.

159. Rafael Loyola Díaz (IIS, Torre de Humanidades II, 7° piso, UNAM, C.U., México, D.F. 04510)
The Mexican State and Labor Struggles:
Oil and Railroad Workers, 1940-1946

During the Avila Camacho administration (1940-46), struggles within the oil and rail workers' unions led to the weakening of the position of organized labor in general. This research attempted to uncover the political factors which underlay these struggles, as well as to describe the political milieu of the time, the Camacho administration's policy toward the labor sector, and the political strategies of labor organizations. Sources consulted include the presidential papers in the AGN, national newspapers and periodicals of the period, union documents, and a limited bibliography of secondary sources.

Begun Oct. 1979. Completed 1984. UNAM.

160. Rafael Loyola Díaz (IIS, Torre de Humanidades II, 7° piso, UNAM, C.U., México, D.F. 04510)
Querétaro: Industrialization and Political Power, 1950-1979

This study of regional development examines the city of Querétaro during the period of its dynamic transformation from a society dominated by agricultural interests to one influenced primarily by industry and industrial interests. A special focus of the research involves detailing the relationship between the federal and local governments and identifying the limits to their autonomy. Information has come from the AGN, the Querétaro state archives, and interviews with individuals and organizations participating in the development process.

Begun May 1980. EDC Nov. 1986. UNAM.

161. David R. Maciel (History Dept., UNM, 1104 Mesa Vista, Albuquerque, NM 87131)
Ignacio Ramírez: Collected Works

The researcher proposes to compile and edit the complete works of Ignacio Ramírez, one of the foremost politicians and writers of 19th-century Mexico. When completed, the five-volume series will be the only existing comprehensive collection of Ramírez's writings, each volume focusing on a topic of special interest to Ramírez or consisting of his literary writings. The series will include more than 300 newspaper articles, Ramírez's seven books published in the 1860s and 1870s (but never reprinted), his entire personal archive of over 8,000 pages of unpublished material, the various chapters that he contributed to studies of Mexican culture, and all of his major speeches, reviews, and notes. Each volume will include a prologue, footnotes, and an index and will be published by the Centro de Investigación Científica Jorge L. Tamayo in Mexico.

Begun Feb. 1977. EDC July 1985.

162. Oscar R. Martí (CSRC, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024)
Mexican Philosophy since the Conquest

This project involves translating, editing, and annotating selections from the most important writings of Mexican philosophers since the conquest, including such writers as Alonzo de la Vera Cruz, Antonio Rubio, José Antonio Alzate, José María Luis Mora, Gabino Barreda, Ignacio Ramírez, Justo Sierra, José Vasconcelos, Antonio Caso, Samuel Ramos, Leopoldo Zea, and Luis Villoro. The researcher has also compiled and computerized a 1000-item bibliography covering topics such as ethics, law, metaphysics, logic, the history of Mexican philosophy, and European or Mexican antecedents.

Begun Mar. 1980. EDC June 1985. Institute for American Cultures. Publication: "An Anthology of Mexican Philosophy from the Conquest to the Present" (Los Angeles, Calif.: CSRC Publication, UCLA, forthcoming).

163. Oscar R. Martí (CSRC, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024)
The Gabino Barreda Centennial Lectures

This collection of nine essays by Leopoldo Zea, W. Dirk Raat, Luis Leal, John Skirius, David Maciel, Jacqueline Rice, Jorge Klor de Alva, Ray Rocco, and Oscar R. Martí examines the influence of Don Gabino Barreda and positivism on 19th-century Mexican intellectual history, politics, education, literature, art, philosophy, and contemporary Mexico and the Chicano.

Begun Feb. 1981. Completed 1984. CSRC/Latin American Center/Philosophy Dept., UCLA. Publication: *Aztlán (The Gabino Barreda Centennial Issue)* 14:2 (1983).

164. Cheryl E. Martin (Dept. of History, UTEP, El Paso, TX 79968)
Labor Relations and Social Control
in Northern Mexico:
Nueva Vizcaya in the 17th and 18th Centuries

This study of labor in colonial northern Mexico will examine the changing ethnic composition of the labor force; the roles of black slavery, Indian slavery, convict labor, and debt peonage; the methods employed by government and clergy to control the laboring population; changes in the status and material well-being of labor over time; and migration into and within mining regions. Principal data sources include the municipal archives of Parral and Chihuahua, the state archives of Durango, archives in Guadalajara and Mexico City, and pertinent parish registers.

Begun Mar. 1984. EDC indefinite.

165. Juana Martínez (CIH, Univ. Veracruzana, A.P. 369, Xalapa, Ver. 91000)
Labor and the Sugar Industry in Veracruz in the 1920s:
The San Cristóbal Sugar Mill

This project examines the growth of the San Cristóbal sugar mill in Cosamaloapan, Veracruz from 1917 to 1934; it also deals with labor and peasant movements and organizations of refinery employees during this era.

Begun Jan. 1983. Completed 1984. Publication: "Apuntes sobre la industria azucarera y la organización de sus trabajadores en Veracruz en los años 20s," unpublished.

166. Carlos Roberto Martínez Assad (IIS, Torre de Humanidades II, 7° piso, UNAM, C.U., México, D.F. 04510)
Regional Political Movements

General Saturnino Cedillo's rebellion in 1938 generated a series of changes in the relationship between the state and civil society in Mexico. The political impact of these changes was disproportionately great, given the military weakness of the rebels, but both the government and other political groups exaggerated rebel achievements in order to justify subsequent political actions.

Publications: *El laboratorio de la Revolución: el Tabasco garridista* (México, D.F.: Siglo XXI, 1979); "Los caudillos regionales y el poder central," in *Revolucionarios fueron todos* (México, D.F.: SEP/Fondo de Cultura Económica, 1981); *El henriquismo, una piedra en el camino* (México, D.F.: Fondo de Cultura Económica/Martín Casillas Editores, 1982).

167. ‡Jean Meyer, Juan Manuel Durán, Thierry André Linck, César Moheno, Cecilia Noriega, Sergio Pardo, Cayetano Reyes (Centro de Estudios Rurales, El Colegio de Michoacán, Av. Madero Sur 310, Zamora, Mich. 59600)

Northeastern Michoacán: Agriculture and Society

This research utilizes an interdisciplinary approach in the study of the fundamentally agrarian economy and society of northeastern Michoacán. It examines primarily the period between 1880 and 1980 but makes reference to earlier periods, especially 1780-1880. Utilizing the methodologies of history, geography, economics, sociology, and agronomy, the study hypothesizes that the area around Zamora, Michoacán functions as an integrated region. The project will study the region and its population in space and time to discover permanent factors as well as the sources of revolutionary movements.

Begun Jan. 1981. Ongoing. SEP/CONACYT/El Colegio de Michoacán. Publication: J. M. Durán, *Revolución agrícola en la tierra caliente de Michoacán* (Zamora: El Colegio de Michoacán, 1984).

168. Luz María Mohar Betancourt (CIESAS, Casa Chata, Esq. Hidalgo y Matamoros, Tlalpan, México, D.F. 14000)

Cotton in the Sixteenth Century:
Its Pre-Hispanic and Colonial Importance

At the moment of contact with the Spanish, Mexico's indigenous societies began to meld into a new economic system strongly oriented toward capitalism. This research examines the manner in which external pressures displaced a native crop which had been a fundamental element of the pre-conquest economy and society, as well as the effects of this displacement. The study also explores the question of whether these changes led to the appearance of new production centers or to the strengthening of traditional centers, given that the disappearance of some centers must have resulted in increased demands on those that remained. A review of archives, chronicles, travel narratives, and price control information will provide the data on specific regions and will permit comparisons between regions, as well as providing a global perspective.

Begun Jan. 1984. EDC Dec. 1987.

169. ‡Enrique Montalvo Ortega, ‡Enrique Semo (Rectoría, UAM-Xochimilco, Calz. del Hueso 1100, Col. Villa Quietud, México, D.F. 04960)

Antecedents of the Modern Mexican State

This research attempts to identify the constituent elements of the Mexican state during the *porfiriato* and outline the primary currents of disjuncture and continuity provoked by the Mexican Revolution. The researchers will gather information from newspaper and archival sources and from informants; they will ultimately author one of a series of ten books on the modern Mexican state.

Begun Apr. 1984. EDC Apr. 1986. CONACYT/UAM-Xochimilco.

170. Adriana Naveda Chávez-Hita (CIH, Univ. Veracruzana, A.P. 369, Xalapa, Ver. 91000)
The Establishment of a Center for Historical Information in Veracruz

This project attempts to recover, organize, and disseminate historical information related to the state of Veracruz. The resulting collection of archival material, photographs, speeches, and publications will facilitate future historical research.

Begun May 1979. EDC indefinite. SEP. Publications: "Guía de microfilms, archivos y materiales sobre Veracruz que se encuentran en el Centro de Investigaciones Históricas," Serie Archivos, no. 1 (Xalapa, Ver.: CIH); "Guía del Ramo Junta Central de Conciliación y Arbitraje del Archivo General del Estado," Serie Archivos, no. 2 (Xalapa, Ver.: CIH); "Los archivos del norte del estado," Serie Archivos, no. 3 (Xalapa, Ver.: CIH).

171. Lilia Victoria Oliver Sánchez (IES, Univ. de Guadalajara, Liceo y Juan Alvarez, 7° piso, Guadalajara, Jal. 44280)
Settlement in Guadalajara, 1810-1908

The demographic evolution of 19th-century Guadalajara constitutes the focus of this study, which reviews general trends and periodic variations in marriage, birth, and death rates. The researcher hypothesizes that epidemics, frequent coups d'etat, and unhealthy living conditions restrained the growth of the population of Jalisco until the final decade of the 19th century; further, that mortality is the determinant variable of 19th-century demographics. Primary sources of information are parochial archives, including the registers of marriages, baptisms, and deaths. The information thus gathered will be analyzed statistically and interpreted in terms of its social and economic background.

Begun Mar. 1984. EDC Dec. 1985. Publications: *Un verano mortal: análisis demográfico y social de una epidemia de cólera en Guadalajara, 1833* (Guadalajara, Jal.: Univ. de Guadalajara, forthcoming); *La antigua Autlán de la Grana* (Guadalajara, Jal.: Unidad Editorial del Gobierno del Estado de Jalisco, 1983); "Los servicios de salud, el pensamiento ilustrado y la crisis agrícola de 1785-86 en Guadalajara," in *Memorias del Seminario sobre Servicios de Salud* (Guadalajara, Jal.: Univ. de Guadalajara, 1984).

172. Alberto Javier Olvera Rivera (CIH, Univ. Veracruzana, A.P. 369, Xalapa, Ver. 91000)
Proletarians and Unions in the Petroleum Industry: Poza Rica, 1932-1960

This study focuses on the evolution of class consciousness and labor organization among petroleum workers in Poza Rica. The study also addresses the development and characteristic features of the labor process in the area as well as political relations within these workers' union. The involvement of the union in labor management following the nationalization of the petroleum industry gives evidence of the advanced forms of organization and class consciousness which these workers had developed during the 1930s. Their advances nonetheless gave way during the next two decades in the face of opposition from the state. Rather than accepting interpretations of union leaders or the state, this social history of labor examines the class characteristics and class actions reflected in the daily lives of these workers as a group. Concepts basic to the analysis include the labor process, social origin, culture and ideology, and union activities and struggles. The researcher has obtained data from union archives, the PEMEX library, and the AGN, as well as from oral histories.

Begun Jan. 1982. EDC June 1985. Univ. Veracruzana. Publication: "Condiciones de vida, origen social y organización sindical del proletariado petrolero en Poza Rica: 1932-1935," in *Anuario IV del CIH-UV* (Xalapa: CIH-UV, forthcoming).

173. Maximino Ortega Aguirre (Dpto. de Sociología, UAM-Iztapalapa, Av. Purísima y Michoacán, Iztapalapa, México, D.F. 09340)
José Revueltas and the Struggle within the Mexican Communist Party

Mexico's popular movement of 1956-59, the XX Congress of the Communist Party in the Soviet Union, and the internal struggle in the Mexican Communist Party (PCM) provide the framework for this study of the intellectual contributions of José Revueltas during this period. The researcher's objective is to preserve for the history of Mexican socialist thought the criticisms offered by José Revueltas of reformist gradualism and Mexico's political system. He will also formulate hypotheses regarding the contemporary directions being taken by Mexico's radical left.

Begun May 1984. EDC May 1985. Publications: "La lucha contra el 'charrismo' en el STFRM: las jornadas de junio de 1958," *Iztapalapa* 2:5 (July-Dec. 1981):111-135; *La izquierda sindical mexicana* (México, D.F.: UAM-Iztapalapa, 1984).

174. Maximino Ortega Aguirre (Dpto. de Sociología, UAM-Iztapalapa, Av. Purísima y Michoacán, Iztapalapa, México, D.F. 09340)
The Mexican Confederation of Workers, 1958-1962

Part of a general study of the labor movement and the state within a wider time frame, the present research examines the internal dynamics of the Mexican Confederation of Workers (CTM) from 1958 to 1962. It reviews state and national councils and congresses, contract changes, strikes, internal conflicts, electoral activity, and the attainment of employee benefits. The study also examines the relationship between the CTM and other national and international labor organizations, its participation in labor tribunals and organizations for popular and state representation, and its position vis-à-vis capital.

Begun May 1984. EDC May 1985. Publications: "Estado y movimiento obrero, 1940-1959," in *Memoria del Primer Coloquio Regional de Historia Obrera* (México, D.F.: CEHSMO, 1977); "La asamblea del Congreso del Trabajo y el sindicalismo universitario," in *Memorias del Encuentro sobre Historia del Movimiento Obrero*, vol. 3 (México: Univ. Autónoma de Puebla, 1980).

175. Carlos Salvador Paredes Martínez (CIESAS, Victoria 75, Tlalpan, México, D.F. 14000)
Sixteenth- and Seventeenth-Century Agriculture and Society in the Region of Izúcar, Puebla

Agricultural practices of the indigenous and Spanish populations in Puebla, in the former case dating from the pre-Hispanic period, constitute the focus of this study. The cultivation of cotton in the late 16th century and the introduction of sugarcane cultivation shed light on the historical development of agriculture in the region, as well as on the principal processes of social change.

Begun Jan. 1984. EDC Mar. 1987. CIESAS.

176. Ricardo Pérez Montfort (CIESAS, Casa Chata, Esq. Hidalgo y Matamoros, Tlalpan, México, D.F. 14000)
The Falangist Movement in Mexico

This research examines the influence of the Spanish falangist ideology on extreme right-wing movements in Mexico. It focuses on the years of the Cárdenas administration (1934-40), especially on the antecedents of the Unión Nacional Sinarquista and the Partido Acción Nacional. Sources include private and municipal archives, Spanish documents, and the AGN in Mexico City.

Begun May 1983. EDC indefinite. CIESAS/UNAM. Publication: "Notas sobre el falangismo en México 1930-1940," Cuadernos de la Casa Chata (México, D.F.: Ediciones de la Casa Chata, forthcoming).

177. ‡Robert A. Potash (Dept. of History, Univ. of Massachusetts, Amherst, MA 01003), Jan Bazant, Josefina Zoraida Vázquez (CEH, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
Pilot Project for a Computerized Guide to Notarial Archives

This project aims to develop techniques for the preparation of computerized guides to notarial archives. The pilot project focuses on the Archivo General de Notarías of the Distrito Federal. Data extracted from its records for the years 1829, 1847, and 1875 form a database held at the University of Massachusetts Computing Center, from which the researchers are constructing indices listing the location of all references to persons, corporate entities, and assets. A database for the records of the years 1836, 1838, and 1842 will be created at El Colegio de México.

Begun Nov. 1980. Completed 1984. Tinker Foundation/OAS. Publications: *Guide to the Notarial Records of the Archivo General de Notarías of Mexico City for the Year 1829* (Amherst: Univ. of Massachusetts Computing Center, 1982); *Guide to the Notarial Records of the Archivo General de Notarías of Mexico City for the Year 1847* (Amherst: Univ. of Massachusetts Computing Center, 1983).

178. Linda Rodríguez (Latin American Center, 10343 Bunche Hall, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024)
The Industrialization of Mexico:
A Study of Politics and Development, 1924-1954

This study of state-directed industrialization in Mexico from 1924 to 1954 will examine the relationship between the growth of the Mexican state and the onset of late industrialization. The first part of the study will examine the formation of the institutional structure and the societal relationships that allowed the country to emerge as a successful example of state-guided industrialization. The restructuring of the nation's financial system will constitute the second facet of the study. The relationship between the executive branch, particularly the Ministry of Finance, and the newly-formed financial institutions, such as the Banco de México and the public development banks, is of great significance. The study will consider the role of these institutions in the areas of capital accumulation, the flow of credit to key industrial sectors, and the formation of development policy.

Begun Aug. 1983. Ongoing.

179. Teresa Rojas Rabiela (CIESAS, Casa Chata, Esq. Hidalgo y Matamoros, Tlalpan, México, D.F. 14000)
Indigenous Agriculture in the 16th Century

This study addresses the historical development of pre-Hispanic agriculture during the first century of the colonial period. It focuses on the variation and distribution of agricultural systems and on indigenous methods of cultivating the most important domestic plants in the region of ancient Mesoamerica. The research also examines changes in production and distribution which resulted from the introduction of Old World plants and technologies; changes in the demand for indigenous crops; and the effects on production of a declining population. The study's sources of information include archival materials, chronicles, and modern ethnographies relevant to the topic.

Begun Jan. 1981. EDC June 1985. CIESAS. Publication: *La agricultura indígena en el siglo XVI*, Colección Sepochentas, 54 (México, D.F.: SEP/Fondo de Cultura Económica, 1984).

180. Stanley R. Ross (Mexican-American Border Research Institute, UT-Austin, Austin, TX 78712)
El Hijo del Fantasma

This project involves the translation and editing of a pre-revolutionary newspaper, and the completed work will assess its validity and historical value. Upon its completion, the publisher who is supporting this research will issue a bilingual edition of the study.

Begun June 1981. EDC Dec. 1984.

181. Roberto M. Salmon (History Dept., Pan American Univ., Edinburg, TX 78539)
Indian Resistance in the Mexican North

This work analyzes Indian revolts in northern New Spain during the years 1680-1786, with reference to the religious missions, presidio policy, and legislation regulating relations between Indians and frontiersmen. Research questions focus upon warfare in the borderlands as a unifying force that fostered intermixture and common cultural interests. The methodology is ethnohistorical, focusing upon individual Indian leaders such as Pope and Salvador Palma.

Begun 1976. Ongoing. Pan American Univ. Publications: "Frontier Warfare in the Hispanic Southwest: Tarahumara Resistance, 1649-1780," *Mid-America* 58 (Oct. 1976):175-185; "Jesuit Missionary Methods in Northern New Spain, Alta Tarahumara, 1620-1710," *Ethnohistory* 24 (fall 1977):379-393; "No Hope for Victory: Piñeda's 1791 Report on the Apache Frontier," *Journal of Arizona History* 20 (autumn 1979):269-282.

182. Richard J. Salvucci (Dept. of History, UCB, Berkeley, CA 94720)
Textiles and Capitalism in Colonial Mexico:
The Case of the *Obrajes*

This economic history of the textile manufactories of colonial Mexico is based on extensive archival research and the use of neoclassical economic theory. The manuscript currently deals with the period from about 1690 through 1810, but it will take a somewhat longer view in final form.

Begun 1976. EDC Dec. 1984. Doherty Fellowship/Davis Center for Historical Studies, Princeton Univ./American Philosophical Society. Publications: "Aspectos de un conflicto empresarial: el obraje de Balthasar de Sauto y la sociedad de San Miguel el Grande, 1756-1771," *Anuario de Estudios Americanos* 36 (1979); "Old Colonial Mexico and the New Economic History," Occasional Paper of the Stanford-Berkeley Joint Center for Latin American Studies, 1982.

183. Richard J. Salvucci (Dept. of History, UCB, Berkeley, CA 94720)
Studies in Mexican Price History

This research will result in a collection of essays dealing with various aspects of the history of prices in Mexico from colonial times to the present. Sources for the study include hospital record books and notarial records from the colonial period and, for the modern era, reports from the government, the central bank, and international agencies. The researcher has particular interest in examining monetarist versus structuralist hypotheses concerning inflation in contemporary Mexico. The study will also attempt to produce useful price indices for the colonial period.

Begun 1983. Ongoing. UCB. Publication: "'Inflation is Always and Everywhere a Monetary Phenomenon': A Monetarist View of Inflation in Mexico since 1960," forthcoming.

184. Ulla Karla Schmid (Univ. of Freiburg, Stabhalter-Flury-Strasse 58, 7860 Schoptheim, Federal Republic of Germany)
The Tribute Income of the Aztecs according to the *Codex Mendoza*

Based on the *Codex Mendoza,* this study examines the regional breakdown and organization of tribute income in the Aztec empire, as well as the relationship between that income and the Aztecs' "foreign policy" of war, conquest, and human sacrifice. The topics addressed include types and sources of tribute under different emperors, the dependence of the Aztecs on tribute and its effects on their social system, and the process of deciding when and where to make war, as well as the meaning of war for the Aztec nobility. The researcher hopes to discover the reason for the strong emphasis on military activity in Aztec society, to shed some light on the so-called Azcapotzalco Pact, and to explain how the function of tribute changed along with the evolution of the Aztec war nobility.

Begun fall 1981. EDC Dec. 1984.

185. Patricia Seed (Dept. of History, Rice Univ., P.O. Box 1892, Houston, TX 77251)
Marriage and Patriarchy in Colonial Mexico, 1580-1822

Based on parish archives, church court records, and royal court suits, this project examines the evolution of power and authority in Mexican families of medium and high social status by analyzing their internal conflicts over the selection of marriage partners. Covering over two hundred fifty years of the colonial period, the research demonstrates that the structure of colonial families had shifted markedly toward greater patriarchal domination by 1822. The study reveals a transformation in religious and cultural values which reflects a larger social and political metamorphosis in colonial society.

Begun Dec. 1976. EDC Dec. 1984. Fulbright-Hays/SSRC/NEH. Publications: *Marriage and Patriarchy in Colonial Mexico, 1580-1822*, forthcoming; "The Colonial Church as an Ideological State Apparatus," in *Proceedings, VI Conference of U.S. and Mexican Historians*, forthcoming.

186. Patricia Seed (Dept. of History, Rice Univ., P.O. Box 1892, Houston, TX 77251)

Mathematical Modeling of Population Dynamics: Race Mixture in Colonial Mexico

This project will have two phases: the first, based on parish archives, will involve assembling a database for the study of miscegenation in Mexico from the 16th through the early 19th century; the second will entail the development of mathematical models to describe and to explain the process of mixture. The study will analyze both marital and non-marital miscegenation.

Begun Jan. 1984. Ongoing. Tinker Foundation.

187. Harold Sims (Dept. of History, Univ. of Pittsburgh, Pittsburgh, PA 15260)

The Expulsion of the Spaniards from Mexico, 1821-1836

By utilizing the *Ramo de expulsión de españoles* and the *Ramo de gobernación* in the AGN, the researcher has undertaken an analysis of the post-independence Spanish-born community throughout Mexico. The research has thus far yielded three monographs on that community and its fate (most, but far from all, were eventually expelled), as well as on the political, economic, and social reality of Mexico under the First Federal Republic. The work, now essentially complete through 1830, will culminate with a fourth monograph treating the resolution of the problem in the years 1831-1836.

Ongoing. Foreign Area Fellowship Program/American Philosophical Society/Univ. of Pittsburgh. Publications: *La expulsión de los españoles de México, 1821-1828* (México, D.F.: Fondo de Cultura Económica, 1975); *Descolonización en México: el conflicto entre mexicanos y españoles, 1821-1831* (México, D.F.: Fondo de Cultura Económica, 1982); *La reconquista de México: la historia de los atentados españoles, 1821-1830* (México, D.F.: Fondo de Cultura Económica, 1984).

188. ‡Harold Sims, Kathy Acklin (Dept. of History, Univ. of Pittsburgh, Pittsburgh, PA 15260)

The Spaniards of Guanajuato, 1821-1836: A Collective Biography

This study analyzes the persecution of the Spanish-born in the city of Guanajuato during the First Federal Republic at the hands of the Yorkino party. Using local archives, the researchers hope to discover the characteristics of the Spanish community that survived the Hidalgo revolt and the struggle for independence. The investigation should provide a case study of a local economy in decline and of capital flight and retrenchment as well.

Begun Jan. 1984. EDC Dec. 1984. Center for Latin American Studies, Univ. of Pittsburgh.

189. David Alan Skerritt (CIH, Univ. Veracruzana, A.P. 369, Xalapa, Ver. 91000)
Cattle Raising in Veracruz, 1918-1945: Second Phase

This research focuses on the cattle industry in Veracruz, principally in the 1920s. The first phase dealt with the central coastal region of the state; the second will examine a Huastecan *municipio* and compare it to the coastal region, with emphasis on the social class behavior identified and analyzed in the first phase.

Begun Aug. 1984. Ongoing. Univ. Veracruzana. Publications: "El papel de Adalberto Tejeda en la cuestión agraria," *La Palabra y el Hombre* 2; "Qué es la Mano Negra?" *Anuario 3* (Xalapa, Ver.: CIH, 1984); "El trabajo rural en un municipio veracruzano alrededor de 1920," *Anuario* 4 (Xalapa, Ver.: CIH, forthcoming).

190. Anne F. Staples (CEH, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
History of Medical Education in 19th-Century Mexico

As a result of political upheavals as well as innovations on the part of doctors themselves, great changes took place during the 19th century in Mexican medical schools. Several new ones were established and the old traditional ones were forced to update their curricula. The most celebrated example was the creation of an Establishment of Medical Sciences (formed as part of Gómez Farías' political, educational, and judicial reforms in 1833) only a couple of years after the combination of the fields of surgery and medicine, which had a fundamental effect on the teaching of medicine. One- or two-hundred-year-old Latin textbooks were replaced by new French ones, and experimental medicine came into its own. In spite of the lack of proper laboratories, medicine in Mexico entered a modern period and it has continued its advance to the present. The process of how and when new texts and subjects were introduced and the opposition they encountered should provide insights into the process of modernization that Mexico underwent during the 19th century. Sources include various medical and university archives and the AGN.

Begun June 1980. EDC Dec. 1985. El Colegio de México. Publication: *Historia de la medicina en México* (México, D.F.: Academia Mexicana de Medicina, forthcoming).

191. Anne F. Staples (CEH, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
The History of Adult Education in Mexico, 1821-1857

During the first half of the nineteenth century, adult education in Mexico consisted of Sunday or night classes, with emphasis on moral education (learning to recite Christian doctrine), drawing, and to a lesser extent reading and writing. The purpose of this study is to describe efforts at adult education, by whom they were made, the groups at which they were directed, and the kinds of opposition and obstacles that they faced. The study will include considerations about formal and informal education and special education projects for Indian communities. It also addresses the state and national constitutional requirements that literacy be a prerequisite for exercising civil rights, the efforts made to comply with these requirements, reasons for failure, and efforts made by the Junta de Fomento and Compañía Lancaster, which patronized night schools for workers. Sources include legislation and yearly reports from state governments, contemporary newspapers from various states, and documents from the AGN.

Begun Jan. 1984. EDC Dec. 1984. El Colegio de México/INEA.

192. Clara Elena Suárez Argüello (CIESAS, Casa Chata, Esq. Hidalgo y Matamoros, Tlalpan, México, D.F. 14000)
Transportation in Colonial New Spain

This research analyzes the organization of supply transport in colonial Mexico, focusing on the region now encompassed by the state of Morelos and including part of the lacustrine area of the Valley of Mexico. A comparative study, it examines both land supply routes (by mule train and wagon) and the water routes utilized in provisioning the Valley of Mexico. The researcher hopes to illuminate this relatively unexamined activity in colonial New Spain, given that the ability to acquire essential goods is a prerequisite of economic development. Most previous studies on transportation have focused on later periods of Mexican history, emphasizing the introduction of railroads and their impact. The geographical area selected for the present study was chosen because it includes two poles of attraction (Mexico City and the port of Acapulco) and also permits an analysis of traffic within a region. Archival reviews and fieldwork will provide data on the movement of goods such as silver and sugarcane.

Begun Apr. 1984. EDC 1986. CIESAS. Publication: *La política cerealera en la economía novo-hispana: el caso del trigo* (México, D.F.: CIESAS, forthcoming).

193. ‡Jaime Ezequiel Tamayo Rodríguez, Laura Patricia Romero Miranda (IES, Univ. de Guadalajara, Liceo y Juan Alvarez, 7° piso, Guadalajara, Jal. 44280)
The Labor Movement in Jalisco, 1920-1930

During the 1920s in Mexico, the dominant capitalist relations of production were consolidated; industrial labor emerged as a basic social class; labor unions developed superior forms of organization; radical, collaborationist, and patronal tendencies developed within labor organizations; the modernizing state and the regional bosses began to experience conflict with radical union leaders; and popular labor leaders and the radical union movement forged an alliance. This study analyzes the development of the forces of production, class structure, and class struggle to reconstruct the history of this regional working class from labor's perspective, to view the history of the national labor movement in a regional perspective, and to evaluate the role of Jalisco's proletariat in the modernization of the Mexican state.

Begun Aug. 1979. Completed 1984. SEP. Publication: *La rebelión descabezada: el delahuertismo en Jalisco* (México: Univ. de Guadalajara, 1982).

194. ‡Jaime Ezequiel Tamayo Rodríguez, Laura Patricia Romero Miranda
(IES, Univ. de Guadalajara, Liceo y Juan Alvarez, 7° piso, Guadalajara, Jal. 44280)
The Labor Movement in Jalisco, 1930-1940

This study analyzes the labor movement in Jalisco within a national context; evaluates developments in the forces of production and the reflection of those developments in the superstructures; appraises the role of this region's working class in the last stages of modernization of the Mexican state; and outlines the historical conditions which shaped the union movement as it exists in the region today. The authors advance two hypotheses: that the institutionalization of social relations accompanies state modernization; and that the end of popular union bosses undermined alliances within the radical labor movement and led to its debilitation. The methodology begins with an analysis of the forces of production.

Begun Aug. 1984. EDC Dec. 1985. Univ. de Guadalajara.

195. S. Samuel Trifilo (Dept. of Foreign Languages, Marquette Univ., Milwaukee, WI 53233)
Mexico as Seen and Described by 19th-Century British Travelers

After the wars of independence against Spain, numerous British travelers visited Mexico and other Spanish American countries. This study, based on the diaries, journals, and travel accounts written by many of these travelers to Mexico, will attempt to convey the valuable insights in these works about the customs, political and economic conditions, and way of life prevalent in Mexico during the immediate post-independence period. The researcher has already published similar studies dealing with 19thcentury British travelers in Argentina, Chile, and Peru and hopes to produce a series of articles or a book-length study on travelers to Mexico.

Begun June 1982. Ongoing. Marquette Univ./Gettel Research Grant.

196. Eric J. Van Young (Dept. of History, C-004, UCSD, La Jolla, CA 92093)

The Other Rebellion: A Social History of the Mexican Wars of Independence, 1810-1817

This project examines the popular origins and dynamics of mass rebellion in Mexico in the period 1810-1817 during the wars of independence from Spain. Particular emphasis is placed on rural and Indian rebellion in the central part of the country. The researcher hypothesizes that popular violence and rebellion had little if anything to do with elite political grievances and was more closely related to a long-term deterioration in the status of village-dwelling peasants. The methodology combines a case-study approach (intensive regional studies of rebellion and long-term socioeconomic change in the Cuernavaca, Guadalajara, and Huasteca areas) with quantitative techniques and an analysis of collective behavior employing certain elements of psychoanalytic theory. The study draws data from unpublished archival materials located principally in Mexico City and Guadalajara, supplemented by microfilmed documentation and an extensive secondary literature on the period. Presently in the data-collection phase, the researcher plans to complete a book-length study by the end of 1986.

Begun 1980. EDC 1986. Tinker Foundation/UCSD. Publications: "Who Was That Masked Man, Anyway?: Symbols and Popular Ideology in the Mexican Wars of Independence," *Proceedings of the Rocky Mountain Council on Latin American Studies, 1984*, forthcoming; "A Millennium on the Northern Marches: The Mad Messiah of Durango and Popular Rebellion in Mexico, 1800-1815," submitted.

197. Josefina Zoraida Vázquez (CEH, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)

The Army and the State during the Centralist Republic, 1836-1846

The Mexican army played an important role following the attainment of independence from Spain. Threats from abroad and the lack of internal stability combined to place the army in a dominant position, especially from 1841 to 1846, but the exact nature and limits of the military's role are unknown. This study will attempt to explain the army's participation and status within the government, its ideological and political affiliations, its links with merchants and the clergy, and the nature of its leadership in an effort to reveal the reasons for its insufficiency in the war with the United States. The researcher will consult official documentary sources, correspondence, and newspapers of the era.

Begun Jan. 1983. EDC Jan. 1988. Guggenheim Foundation/El Colegio de México.

198. ‡Josefina Zoraida Vázquez, Pilar Gonzalbo Aizpuru, Estela Villalba (CEH, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
Guide to the Notarial Archives in Mexico City, 1836-1846

The central goal of this effort is to make known to researchers the rich variety of information contained in the Notarial Archives of Mexico City. The organization and cataloging of these materials — and the publication of a guide to their use — will encourage historians to investigate this previously underutilized resource.

Begun June 1983. EDC June 1986. El Colegio de México.

199. ‡Josefina Zoraida Vázquez, Mílada Bazant, María Teresa Bermúdez, Pilar Gonzalbo Aizpuru, Engracia Loyo, Jorge F. Nesrala Padua, Carmen Ramos, Anne F. Staples, Dorothy Tanck, Valentina Torres-Septién (CEH, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
A History of Adult Education and Literacy

This team of ten researchers is chronicling adult education throughout various periods in Mexico's history, from the conquest to the present. Although the research team shares methodological guidelines, each member formulates his/her own treatment of the central questions and solutions relating to the problem of adult education in the particular period under study.

Begun Jan. 1984. EDC Dec. 1984. INEA.

200. ‡Josefina Zoraida Vázquez, Francisco Arce Gurza, Mílada Bazant, María Teresa Bermúdez, Pilar Gonzalbo Aizpuru, Engracia Loyo, Anne F. Staples, Dorothy Tanck, Valentina Torres-Septién (CEH, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
History of Education in Mexico

This project focuses on the history of education in Mexico from the conquest to the present, with each individual in the nine-member team examining a different chronological period. The researchers anticipate that this study will result in various publications, including a general work and several monographs.

To begin Jan. 1985. EDC Jan. 1988. El Colegio de México/Fondo para el Fomento de la Educación.

201. Brigida Von Mentz (CIESAS, Casa Chata, Esq. Hidalgo y Matamoros, Tlalpan, México, D.F. 14000)

Trade, Barter, and Social Stratification in 19th-Century Mexico

This investigation focuses on events in the towns and rural areas of Morelos during the nineteenth century in order to ascertain the impacts on the rural population of the political, economic, and social changes that came with the gradual transition to capitalism. The study will involve a detailed examination of municipal, national, and church archives, as well as newspapers and regional documentary materials.

Begun Apr. 1983. EDC 1986. Publications: *México en el siglo XIX visto por los alemanes* (México, D.F.: UNAM, 1982); B. Von Mentz et al., *Los pioneros del imperialismo alemán en México* (México, D.F.: Ediciones de la Casa Chata, 1982); B. Von Mentz et al., *Empresarios alemanes, el Tercer Reich y la oposición de derecha a Cárdenas* (México, D.F.: Ediciones de la Casa Chata, forthcoming).

202. John Womack, Jr. (Dept. of History, Harvard Univ., Cambridge, MA 02138)

A Social History of Industrial Workers in Veracruz, 1880-1940

This project will determine the origins and main forces involved in the development of the industrial sectors of the working class in the state of Veracruz from the period of the first establishment of modern industries there to the Second World War. The researcher hypothesizes that the source of capital for the industries is of little consequence, that the paramount factor is the labor market, and that if left to themselves, workers will not even develop unions — i.e., that unions are not voluntary associations, but impositions by some workers on others, although for the benefit of all unionized. The study utilizes the methodology of social history with data from public and private archives in Europe, the United States, and Mexico.

Begun Aug. 1968. EDC Sept. 1988. SSRC/Guggenheim Foundation/Harvard Univ.

203. Donald L. Wyman (Center for U.S.-Mexican Studies, D-010, UCSD, La Jolla, CA 92093)

Crisis and Control in the Mexican Economy: 1929-1940

During the 1930s, Mexicans fashioned a new political economy, reorganizing various economic structures and expanding the state's role in economic affairs. This project examines the problems that the financial system experienced during the decade, explores why silver was so important in those circumstances, and questions what the United States had to do with it all. It suggests that the vulnerability of the Mexican economy to changes in trade and capital flows with the U.S. revealed the impotence of Mexican officials in managing an economy over which they had little control. The state became more active in an effort to manage the economy, to promote a diversified production, and to break the country's exposure to external shocks; but Mexico's dependence on the international economy — and especially on the United States — increased. Revisions of the initial study continue.

Begun 1981. Ongoing.

Literature and the Arts

204. Ricardo Aguilar Melantzón (Dept. of Modern Languages, UTEP, El Paso, TX 79968)
Mexico's New Poetry: A Critical Anthology

This project will entail the collection and analysis of representative works of poetry written in Mexico since the late 1970s. The researcher plans to write essays about authors who represent currents within this poetic movement and to compile an anthology of these authors' poems as a reference work. It will attempt to answer several important questions regarding the influence of particular authors and will also deal with the influence on modern Mexican poetry exerted by the *talleres de bellas artes* in Mexico City and the provinces. Under the guidance of Mexican writer Gustavo Sainz, the researcher plans to conduct interviews and gather material in Mexico.

Begun Sept. 1983. Ongoing. NRC/Ford Foundation.

205. Ricardo Aguilar Melantzón (Dept. of Modern Languages, UTEP, El Paso, TX 79968)
Interviews with Young Mexican Poets

This project involves the transcription, edition, and publication of a series of interviews with young Mexican poets: Alberto Blanco, Sandro Cohen, Francisco Hernández, Carmen Boullosa, Arturo Trejo, and others.

Begun Oct. 1983. Ongoing. NRC/UTEP.

206. Maureen Ahern (Dept. of Foreign Languages, Arizona State Univ., Tempe, AZ 85287)
A Semiotic Analysis of the Poetry of David Huerta

This semiotic analysis of the poetry of David Huerta utilizes the theoretical models of code, context, and esthetic idiolect proposed by Roman Joakobson and Umberto Eco. The study focuses on *Cuaderno de noviembre* (1978) and its relation to the poet's earlier and more recent collections of poetry.

Begun Jan. 1980. Completed 1984. Publications: "La poesía de David Huerta: inscripción metalingüística," *Eco* 255 (Jan. 1983):248-269; "La poesía de David Huerta: código, contexto e idiolecto estético," *Semiosis* 9 (1982):111-136.

207. Maureen Ahern (Dept. of Foreign Languages, Arizona State Univ., Tempe, AZ 85287)
A Rosario Castellanos Reader

This translated edition of an anthology of the poetry, short fiction, essays, and drama of Rosario Castellanos (1925-1974) will provide the reader with a reading of her work which captures its inherent cohesion and many lucid perspectives. With the exception of some of her better-known poems, Castellanos's work — the short stories, the essays, and her controversial play, *The Eternal Femenine* — have heretofore not been available to the English-language reader. A critical introduction and a short bibliography by the editor complete the manuscript.

Begun Mar. 1981. EDC Mar. 1985. Publication: "Cooking Lesson," in *Contemporary Women Authors of Latin America*, vol. 2, eds. D. Meyer and M. Fernández Olmos (Brooklyn, N.Y.: The Humanities Institute of Brooklyn College and the Brooklyn College Press, 1983).

208. Maureen Ahern (Dept. of Foreign Languages, Arizona State Univ., Tempe, AZ 85287)
The Works of Rosario Castellanos:
A Critical Bibliography

This project updates through June 1983 the researcher's original critical bibliography which compiled items of and about the works of Rosario Castellanos published through December 1978. The task involves presenting the data in a way that most efficiently and clearly identifies each item according to genre and date of publication and distinguishing between autonomous publications and disperse items. The bibliography consists of three principal divisions: the first classifies the primary works written by Rosario Castellanos into five genres; the second lists all known translations of these works; and the third, specifically designed to facilitate research, compiles critical material about Castellanos's literary work, including dissertations written in Mexican universities.

Begun Sept. 1983. Completed 1984. Publications: "A Critical Bibliography of and about the Works of Rosario Castellanos," in *Homenaje a Rosario Castellanos*, eds. M. Ahern and M. S. Vásquez (Valencia, Spain: Albatros-Hispanófila Ediciones, 1980); "Bibliografía anotada de y sobre la obra de Rosario Castellanos," in *Rosario Castellanos, texto y contexto*, eds. J. Franco et al. (Chiapas, México: Subsecretaría de Cultura del Gobierno del Estado de Chiapas, forthcoming).

209. ‡Luis Astey, ‡Ana Rosa González Matute, ‡Beatriz Mariscal de Rhett, ‡María A. Méndez-Kabela, ‡Liliana I. Weinberg-Magis (Centro de Estudios Lingüísticos y Literarios, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
Biblioteca Novohispana

The *Biblioteca Novohispana* publishes rare, preferably previously unpublished texts so as to broaden study and research in Mexican colonial literature. It provides readers of Mexican literature with trustworthy critical editions (rigorously transcribed and annotated) of Spanish-language texts written in New Spain (1521-1810) and has established a strict methodology for editing these works in an attempt to standardize future publications. The project welcomes researchers interested in collaborating in the production of these critical editions.

Begun Jan. 1981. EDC indefinite. El Colegio de México. Publication: A. Alatorre, L. Astey, B. Garza Cuarón, and B. Mariscal de Rhett, eds., *Biblioteca Novohispana: procedimientos de edición* (México, D.F.: Centro de Estudios Lingüísticos y Literarios, El Colegio de México, forthcoming).

210. Juan D. Bruce-Novoa (Dept. of Spanish and Portuguese, Phelps Hall, UCSB, Santa Barbara, CA 93106)
The Archives of Martín Luis Guzmán

After the death of Martín Guzmán, his archives were brought together and placed in storage. The researcher is presently conducting an inventory of their contents as a first step toward cataloging the collection for further research.

Begun June 1981. Ongoing. Publication: "Martín Luis Guzmán: un retrato de Diego Rivera," *Casa del Tiempo* 2:16 (Dec. 1981):4-8.

211. Juan D. Bruce-Novoa (Dept. of Spanish and Portuguese, Phelps Hall, UCSB, Santa Barbara, CA 93106)
The Unknown Bibliography of Martín Luis Guzmán

Martín Luis Guzmán's official bibliographies mention his contributions to newspapers and journals in the United States and Spain, but they list few titles. The researcher is presently reviewing *La Prensa* (San Antonio) and *La Opinión* (Los Angeles) for Guzmán's contributions, comparing titles to listings in his bibliography. Second and third phases of the project will include newspapers and journals in New York and Madrid.

Begun June 1983. Ongoing.

212. ‡Juan D. Bruce-Novoa (Dept. of Spanish and Portuguese, Phelps Hall, UCSB, Santa Barbara, CA 93106), ‡Margarita Vargas (Dept. of Spanish and Portuguese, Univ. of Kansas, Lawrence, KS 66045)
Translations into English of Martín Luis Guzmán's
La sombra del caudillo

Martín Luis Guzmán's second novel on the Revolution has never been published in English translation. This project will provide a complete and accurate translation, along with a critical introduction and two chapters published in the first version of the novel but later excluded.

Begun Aug. 1983. Ongoing. Publication: *The Shadow of the Dictator*, submitted.

213. Sandro Cohen H. (División de Humanidades, UAM-Azcapotzalco, Av. San Pablo 180, Col. Reynosa Tamps., Azcapotzalco, México, D.F. 02200)
The Poetry of Rubén Bonifaz Nuño

This analysis of the writings of Mexican poet Rubén Bonifaz Nuño examines his literary creation of a 20th-century man immersed in a hostile environment, a mythological figure set against the howling, shapeless social masses. The researcher seeks to identify the constants and variables in the poet's writings and hopes to address as well his translations and essays, his literary contemporaries, and his participation in the literary movements of his time.

Begun Nov. 1982. EDC Nov. 1985.

214. Hilda Rosina Conde Zambada (Dpto. de Publicaciones, CEFNOMEX, Abelardo Rodríguez 21, Zona del Río, Tijuana, B.C.N. 22320)
Anthology of Modern Poetry from Mexico's Northern Border Cities

This anthology of poetry by outstanding authors representing Mexico's northern border region is intended both to document and disseminate the achievements of border literature and to encourage future editorial and research efforts relating to the literature of northern Mexico and the country as a whole. The criteria for the selection of poems in this volume include the esthetic and linguistic-literary patterns which define modern poetry, without reference to the sex, age, or thematic focus of the authors. The geographical area included in this review covers all of Mexico's northern border states; the collection of material will involve a review of bibliographic and newspaper sources in or about the region, as well as calls for submissions from poets living in this area. This effort will result in a volume comprising an historical-literary introduction; the poems, preceded by a note on each author; interviews with poets; and a bibliography on the subject.

Begun Aug. 1984. EDC indefinite. Publications: *Poemas de seducción* (México, D.F.: Ediciones de La Máquina de Escribir, 1981); *De infancia y adolescencia* (México, D.F.: Editorial Panfleto y Pantomina, 1982); *En la tarima*, Colección Laberinto, no. 43 (México, D.F.: UAM, 1984).

215. Mercedes Díaz Roig (Centro de Estudios Lingüísticos y Literarios, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
The Ballad within Mexico's Literary Tradition

The first part of this study examines consistency and changes in the historico-geographic, lexical, and formal features of Spanish-origin ballads collected in Mexico. The second involves a detailed study of the Mexican versions of three ballads: "Bernal Francés," "La aparición-

Alfonso XII," and "Delgadina." The analysis is conducted using materials appearing in *El romancero tradicional de México* (see below).

Begun Sept. 1982. Completed 1984. Publications: "Algunas observaciones sobre el romancero tradicional de México," in *Sabiduría popular*, ed. A. Chamorro (Zamora: Colegio de Michoacán/COPFISE, 1983); "La tradición mexicana," in *Estudios y notas sobre el romancero* (México, D.F.: El Colegio de México, forthcoming); M. Díaz Roig and A. González, *El romancero tradicional de México* (México, D.F.: UNAM, forthcoming).

216. Mercedes Díaz Roig (Centro de Estudios Lingüísticos y Literarios, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
The Mexican Folkloric *Copla*

The focus of this research is the *copla*, especially the persistence of or changes in its formal and thematic characteristics over time. An analysis of the ballads appearing in the five-volume *Cancionero folklórico de México* (México, D.F.: El Colegio de México, 1975-1984) and others will identify those aspects of *coplas* which are more typically Mexican and those more typically Spanish.

Begun Jan. 1984. EDC May 1987. Publication: "Aspectos formales de la copla mexicana," *Nueva Revista de Filología Hispánica*, forthcoming.

217. David William Foster (Dept. of Foreign Languages, Arizona State Univ., Tempe, AZ 85287)
Tools for the Study of Mexican Literature

This project involves revising and expanding the author's previously published bibliography of secondary sources on Mexican literature.

Begun Oct. 1984. Ongoing. Publication: *Mexican Literature: A Bibliography of Secondary Sources* (Metuchen, N.J.: Scarecrow, 1981).

218. Margit Frenk (Dept. of Literature, UCSD, La Jolla, CA 92093)
The Poetry of Fernán González de Eslava

This research represents the first critical and annotated edition of the mostly religious poetry written for song by Fernán González de Eslava, a sixteenth-century Mexican playwright and poet. Based on the *princeps* of 1610, this edition also examines J. García Icazbalceta's 1877 edition of González de Eslava's work. The present edition includes footnotes which discuss textual and lexical matters, five appendices containing related works, and an introduction to sixteenth-century Mexican religious poetry, its historical and cultural background, and its relationship to contemporary Peninsular religious songs. The work also analyzes the form and content of González de Eslava's poetry and establishes its relationship to his religious plays. The introduction to the volume includes a biography of the poet.

Begun Sept. 1981. Completed 1984. Publication: F. González de Eslava, *Villancicos, romances, ensaladas y otras canciones devotas*, ed. M. Frenk (México, D.F.: El Colegio de México, forthcoming).

219. Donald H. Frischmann (Dept. of Spanish and Portuguese, Univ. of Arizona, Tucson, AZ 85721)
Mexico's New Popular Theater

Based upon recent field research (mainly in Mexico City, Guadalajara, and Cuernavaca) as well as upon the theoretical writings of Augusto Boal, Néstor García Canclini, and Mexican researchers of popular culture, the present study seeks to prove and document the existence of a distinctly new movement in Mexican popular theater. This new popular theater has its roots in the early part of the 20th century but has rapidly developed only since 1965. It draws heavily upon traditional popular dramatic forms, while at the same time critically focusing upon themes relevant to the socioeconomic and political status of the disenfranchised masses. Its main purpose is to bring about change which would benefit the proletarian and peasant classes. Data sources include several independent theater groups, the Centro de Libre Experimentación Teatral y Artística (CLETA), and the Dirección General de Culturas Populares of the Secretaría de Educación Pública.

Begun Jan. 1983. EDC May 1985. Tinker Foundation. Publications: "El VIII Encuentro Nacional de Teatro del CLETA," (Festival Report) *Latin American Theatre Review* 17:1 (fall 1983):77-82, reproduced in *Tía CLETA* (Xalapa, Ver.) 3 (July 1984):9-14; "El Nuevo Teatro Popular en México: posturas ideológicas y estéticas," *Latin American Theatre Review*, forthcoming.

220. ‡Donald Fritz (Dept. of English, Liberal Arts Bldg. 369, Pan American Univ., Edinburg, TX 78539), ‡Lori A. Jacobson (McAllen International Museum, 1900 Nolana, McAllen, TX 78504)
Mexican Ceremonial and Ritual Masks

The goal of the project is to capture for public understanding a cultural phenomenon currently occurring in Mexico. The use of masks in Mexico is shifting away from ceremonial use toward use as art objects by comparatively sophisticated people. Similar changes have occurred involving African masks, and the process introduces a number of effects for mask producers, mask users, and scholars involved in the study of masks. The researchers will assemble representative masks and associated data on mask use that will facilitate an explanation of the phenomenon and assist the scholars involved with Mexican masks to cope more successfully with the problems created by such a shift. The data will be presented to the public in two primary ways: as an exhibition for museum visitors and in an informative catalogue prepared for the exhibition. An interdisciplinary approach will be used and a variety of educational programs prepared; the exhibition will be available for display at the conclusion of its stay at the McAllen International Museum.

Begun Sept. 1984. EDC May 1985. Texas Committee for the Humanities/Meadow Foundation/McAllen International Museum.

221. Clayton Garrison (School of Fine Arts, UCI, Irvine, CA 92717)
The Performing Arts in Mexico

Among other objectives, the project seeks to share historical, theoretical, and performance information on dance and opera with the Instituto Nacional de Bellas Artes. At the invitation of the Instituto, the researcher will work on specific ballets and operas with national companies and engage in research on dance and opera in Mexico.

Begun Mar. 1981. Ongoing. Instituto Nacional de Bellas Artes/UCI. Creative activity: Direction of ballet "Giselle" (Palacio de las Bellas Artes, México, D.F., Dec. 1981).

222. Shifra M. Goldman (Dept. of Art, Santa Ana College, Santa Ana, CA 92706)
Elite Artists and Popular Audiences:
The Mexican Front of Cultural Workers

The Tlatelolco massacre of students in October 1968 set up a series of imperatives and symbols for a generation of artists emerging in Mexico during the 1970s. The group collective became a noticeable phenomenon in this decade, particularly the groups who began appearing on the art scene by 1972 and organized themselves into the Mexican Front of Cultural Workers in 1978. They shared certain ideals with the founders of the Mexican mural and graphics movements of the 1920s and 1930s but were determined to use a totally contemporary artistic language, opting for pop and conceptual art adapted to specifically Mexican political issues. All had in common their desire to do a new type of public art addressed to working-class audiences; to work collectively and combat individualism; and to avoid the elitism of the art market and the control of state artistic mechanisms. The Front was primarily an urban movement, although one group functioned in rural communities as well. Ultimately the Front recognized the new role of communications in the contemporary world and undertook to critique the manipulations of mass culture by the national and transnational corporations that control the information industries.

Begun May 1984. Completed 1984.

223. Donald K. Gordon (Dept. of French and Spanish, 420 Fletcher Argue Bldg., Univ. of Manitoba, Winnipeg, Manitoba, R3T 2N2 Canada)
Thematic and Structural Links in *Pedro Páramo*

Juan Rulfo's novel *Pedro Páramo* (1955) can, with equal validity, be studied from a variety of angles, e.g., obsession, myth, death. The novel's various discrete elements and its multiplicity of themes create a single, well-integrated, desolate vision of the anguish of life best expressed, literally, through a world of death. In plumbing Rulfo's labyrinthine nether world, one must attempt to fathom the structural links which bind it together.

Begun Sept. 1984. EDC Aug. 1985.

224. María Herrera-Sobek (Dept. of Spanish and Portuguese, UCI, Irvine, CA 92717)
History, Myth and Metaphor:
Women in the Mexican *Corrido*

This in-depth analysis of the various images of women appearing in the Mexican ballad relates these images to their social and historical context. The book is divided into a section dealing with archetypal images, one on metaphorical images, and a third focusing on historical images. The first section explores four major archetypes appearing in these songs: the Great Mother, Eve, the Treacherous Woman, and the Protective Goddess; section two focuses on the animal and plant metaphors used to describe women; and the last analyzes historical figures such as *la soldadera*, the acculturated woman, and the Mexican immigrant woman. The study utilizes thousands of *corridos* covering a 400-year period.

Begun 1979. EDC 1985. Southern Fellowship Funds Career Development Award/Focused Research Program in Orange County Area Studies, UCI/UCI Mexico-Chicano Program/School of Humanities Research and Travel, UCI. Publications: "Mothers, Lovers, and Soldiers: Images of Women in the Mexican *Corrido,*" *Keystone Folklore Journal* 23 (1979); "The Undocumented *Mexicana:* Strategies Utilized in Crossing the U.S.-Mexican Border at San Ysidro, California," in *Mexican American Women Workers in the U.S.-Mexican Border*, ed. Vickie Ruiz, forthcoming; "Crossing the Border: Three Case Studies of Mexican Immigrant Women in Orange County in the 1980s," in *Second Lives: The Contemporary Immigrant/Refugee Experience in Orange County: The Shaping of a Multi-Ethnic Community* (Costa Mesa, Calif.: South Coast Repertory, 1983).

225. Naomi E. Lindstrom (Dept. of Spanish and Portuguese, SRH 1.310, UT-Austin, Austin, TX 78712)
The Narrative Technique of Rosario Castellanos
and Other Selected Mexican Authors

This project examines the work of Mexican writers who seek to represent the discourse of a particular sub-group or subculture within the population — typically one whose mode of expression falls outside mainstream standards of literary acceptability. The researcher has thus far examined the work of the feminist writer Rosario Castellanos, whose writing features the "kitchen talk" of women — that is to say, the types of female exchange that are characteristically not held worthy of a sustained literary presentation. The study could expand to writers who make a point of establishing the literary worthiness of other types of less-prestigious forms of talk, such as those from the subcultures of urban adolescents or other groups frequently perceived as having trivial problems and topics of conversation.

Begun 1978. EDC indefinite. Univ. Research Institute, UT-Austin. Publications: "Narrative Technique and Women's Expression in a Novel by Rosario Castellanos," *Modern Language Studies* 8:3 (1983); "Rosario Castellanos: Representing Women's Discourse," *Letras Femeninas* 5:2 (1980); "Rosario Castellanos: Pioneer of Feminist Criticism," in *Homenaje a Rosario Castellanos*, eds. Maureen Ahern and Mary Seale (Valencia: Hispanófila, 1980).

226. Miguel Manríquez Durán (Dpto. de Difusión Cultural, El Colegio de Sonora, Obregón 54, Hermosillo, Son. 83000)
Sonoran Literature, 1930-1980

This project applies a sociohistoric perspective to the study of Sonoran literature in order to construct a critical history of literature in this state between 1930 and 1980. Now in its initial stages of collecting and describing these materials, the study will review information held in public and private libraries and draw on newspaper files and individual informants.

Begun Aug. 1983. EDC indefinite. El Colegio de Sonora.

227. Robert J. Mullen (Division of Art and Design, UT-San Antonio, San Antonio, TX 78285)
Colonial Architecture and Sculpture of Oaxaca

The existing scholarship on the colonial architecture of Mexico is uneven in quality, in part because previous studies have focused on narrow periods or specific localities. This study will produce a sequel to the researcher's *Dominican Architecture of Sixteenth-Century Oaxaca*, one of the first studies of the region's colonial architecture and still the primary source used by officials responsible for historic preservation in that state. Covering the entire colonial period, the sequel will provide the first in-depth regional study of Mexico's rich heritage of colonial architecture and attendant sculpture. The project relies for data on site visits and research in archives.

Begun 1978. EDC 1985. Fulbright Foundation. Publications: "Santa María Tiltepec: A Masterpiece of Vernacular Architecture," *Anales* 51; *Architecture and Sculpture of Colonial Mexico* (New York: Harper and Row, forthcoming); R. Mullen, contributing ed., *Handbook of Latin American Studies: Colonial Art.*

228. Mary H. Preuss (Dept. of Foreign Languages, Geneva College, Beaver Falls, PA 15010)
Recording, Transcribing, and Analyzing Contemporary Oral Yucatec Maya Literature

Aimed at the preservation of contemporary oral Yucatec Mayan literature, this study involves compilation and analysis of Yucatec stories, myths, etc., in articles and books. Using the methods of participant observation, the researcher is recording oral Mayan literature, principally in the areas of Hoctún and Maxcanu, Yucatán and Tuluum, Quintana Roo. The project entails interviewing elderly Mayas, bilingual (Maya and Spanish) or monolingual (Maya), from these areas. The interviewer elicits stories, parables, myths, legends, etc., (which the narrators learned as children) about supernatural beings, enchanted places and objects, and celestial bodies. After transcription from cassettes and translation into English, the literature is subjected to motif analysis. The researcher anticipates additional literary analyses of these materials in the future.

Begun May 1982. Ongoing. Delta Kappa Gamma Society Stipend.

229. Vicente Quirarte Castañeda (División de Humanidades, UAM-Azcapotzalco, Av. San Pablo 180, Col. Reynosa Tamps., Azcapotzalco, México, D.F. 02200)
Contemporary Mexican Poets:
Their Literary Expressions

A number of contemporary Mexican poets, including Xavier Villaurrutia, Jorge Cuesta, José Gorostiza, and Gilberto Owen, have grouped around *Contemporáneos*, a Mexican literary journal. This research project compares these authors' critical and poetic writings, examines the condition of Mexican poetry in the late 19th and early 20th centuries, and evaluates the contribution of stridency and the search for new modes of expression.

Begun Nov. 1982. Ongoing.

230. Corinna Raddatz (Ethnography Dept., Niederächsisches Landemuseum, Am Maschpark 5, 3 Hannover, Federal Republic of Germany)
Mexican Wax and Clay Figurines from the 19th Century

About 700 19th-century wax and clay figurines from Mexico exist, almost unknown to researchers, in various private collections and museums in Europe. Realistic representations of Mexican folk life from birth to death, most of these figurines are of high artistic value, comparable to European porcelain figurines from Meissen or other famous manufactories. This research will attempt to determine exactly how these figurines were made, why they were produced in large quantities during the 19th century, who made them, and what traditions — European, Mexican, or both — underlie this special handicraft.

Begun 1981. EDC Dec. 1984. Deutsche Forschungsgemeinschaft.

231. ‡Jas Reuter, Aurelio González Pérez (Centro de Estudios Lingüísticos y Literarios, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
Descriptive Bibliography of Popular Music and Poetry in Mexico

This analysis of approximately 500 books and articles dealing with popular music and poetry in Mexico will provide the following information: bibliographic citations; content summaries; lists of libraries where these works can be located; and references to the ethnic groups and languages, literary or musical genres, musical instruments, and popular dances mentioned in these publications.

Begun Jan. 1984. EDC Dec. 1986. El Colegio de México.

232. Joaquina Rodríguez Plaza (División de Humanidades, UAM-Azcapotzalco, Av. San Pablo 180, Col. Reynosa Tamps., Azcapotzalco, México, D.F. 02200)
Novels by Spanish Exiles in Mexico

This project compiles the fictional narratives of Spaniards exiled to Mexico as a direct result of the Spanish Civil War. The author has thus far collected, analyzed, cataloged, and described 80 novels; the contents of these novels are complemented by texts describing the exile experience and interviews with surviving exiles.

Begun Sept. 1981. EDC Dec. 1984. UAM-Azcapotzalco. Publications: "La novela del exilio español en México" (Bachelor's thesis, UNAM, 1983); "Guía de las novelas de los exiliados españoles en México," forthcoming.

233. Isabel Schon (Dept. of Educational Technology and Library Science, Arizona State Univ., Tempe, AZ 85287)
Literature for Children and Adolescents of Mexico

This research examines the literature aimed at the children and adolescents of Mexico. The investigator has published four books dealing with literature for young Mexican readers in the nineteenth and twentieth centuries.

Begun Jan. 1968. Ongoing. Publications: *Books in Spanish for Children and Young Adults*, Series III (Metuchen, N.J.: Scarecrow Press, forthcoming); *Books in Spanish for Children and Young Adults*, Series II (Metuchen, N.J.: Scarecrow Press, 1983); *Books in Spanish for Children and Young Adults* (Metuchen, N.J.: Scarecrow Press, 1978); *Mexico and Its Literature for Children and Adolescents* (Tempe: Arizona State Univ., Center for Latin American Studies, 1977).

234. Robert Stevenson (Dept. of Music, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024)
Music in the Americas

This project examines the history of music in the Western Hemisphere republics, especially those within the territory controlled by Aztecs and Incas. The study emphasizes aboriginal and colonial-era music.

Begun July 1948. Ongoing. Publications: *Music in Mexico: A Historical Survey* (New York: Thomas Y. Crowell, 1952); *Music in Aztec and Inca Territory* (Berkeley: Univ. of California Press, 1968, 1976); *Christmas Music from Baroque Mexico* (Berkeley: Univ. of California Press, 1974).

Political Economy

235. Javier Aguilar García (IIS, Torre de Humanidades II, 7° piso, UNAM, C.U., México, D.F. 04510)
National Industrial Unions and the Mexican Political System, 1940-1982

This study proposes to identify the basic contributions of national unions to the Mexican labor movement and political system. It includes two broad areas of interest: 1) the role of major labor unions in relation to capital and the state, union roles in workers' organizations generally, and their relationship with the national political system; and 2) the rationale within the Mexican political system which led to the set of relations existing between the working class and the state, and to the policies established between the state and major labor unions from 1940 to 1982. Sources consulted include newspapers, books, archives, and labor and government documents.

Begun 1982. EDC 1985. Publications: "Los sindicatos nacionales en México," in *Los obreros mexicanos* (México, D.F.: Siglo XXI, forthcoming); *Los sindicatos nacionales y el sistema político, 1940-1982* (México, D.F.: Ed. Era, forthcoming).

236. Eric N. Baklanoff (Dept. of Economics, Univ. of Alabama, University, AL 35486)
Public Enterprise and "Destabilizing Development" in Mexico

In Mexico, the scope of public enterprise through ownership and control of businesses — the "parastatal sector" — has expanded greatly during the last two presidential *sexenios*. This project analyzes and evaluates Mexico's public enterprise sector from an economic perspective. It begins with a survey of the recent evolution and present scope of Mexico's public enterprises and proceeds by developing a framework for understanding the politics of the Mexican parastatal phenomenon. The work also attempts to evaluate Mexico's public enterprise economically in the context of the government's ambivalent and often conflicting policy goals. Specific questions raised by the study relate to recruitment and autonomy of management, operational results, and the impact of public enterprise upon the federal budget and external public debt.

Begun Sept. 1982. EDC Dec. 1984. Univ. of Alabama Research Grants Committee.

237. Jorge Basurto (IIS, Torre de Humanidades II, 7° piso, UNAM, C.U., México, D.F. 04510)
The State and Government in Mexico

Mexico displayed in 1970 clear signs of being on the threshold of an economic crisis caused by both internal and external factors. Among the internal causes was the exhaustion of the dynamism in the development model followed since the 1940s; among the external causes, the crisis prevailing in the developed countries. Luis Echeverría proposed a program, with its historical antecedents in the ideology of the Lázaro Cárdenas administration, which attempted to satisfy popular demands by mobilizing workers and peasants in support of their government. But conditions during Echeverría's administration differed from those of the 1930s: the bourgeoisie of the 1970s was more powerful, both politically and economically, and the state apparatus had become more conservative. As a result of different conditions, the strategy produced different results. This study attempts to locate the populist elements in Echeverría's administration and identify the responses of the affected sectors.

Begun Jan. 1984. EDC 1985. IIS, UNAM. Publication: "The Late Populism of Luis Echeverría," in *Latin American Populism in Comparative Perspective*, ed. Michael Conniff (Albuquerque: Univ. of New Mexico Press, 1982).

238. ‡Fernando Bazúa Silva, Mauricio Saez de Nanclares (Dpto. de Relaciones Sociales, UAM-Xochimilco, Calz. del Hueso 1100, México, D.F. 04960)
The Modern State and Crisis: Planning in Mexico in the 1980s

This project analyzes how various governmental structures in Mexico have responded to the economic crisis plaguing Mexico since 1982 and also seeks to determine the role of planning in these structures' political and scientific/technical considerations. The researchers hypothesize that the economic characteristics of today's crisis hold social and political implications for all governmental structures and their relationship with Mexican society. These implications leave planning at the center of the government's objectives: to adapt its system of legitimacy to the complexity of contemporary capitalist society and to restructure the characteristics of the national economy in accord with conditions in the world market.

Begun Sept. 1984. EDC Dec. 1985. Publications: F. Bazúa Silva et al., "Movimiento comunista mexicano y transición capitalista: ¿qué hacer?"

Teoría y Política 1 (1980); F. Bazúa Silva and G. Valenti Nigrini, "Notas acerca de la modernidad en México," Cuadernos de Investigación, 89 (México, D.F.: UAM, 1982).

239. Ilán Bizberg (CEI, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
Worker Consciousness and Union Participation

This research focuses on worker consciousness, union participation, and extra-union activities of workers in two factories (Siderúgica Lázaro Cárdenas-Las Truchas in Michoacán and Altos Hornos de México in Monclova, Coahuila). It attempts to determine the degree to which such behavior is conditioned by variables at the individual level on the one hand, and at the collective and structural levels on the other. Among collective- and structural-level variables are the degree of automation in the specific area of the factory in which the worker is employed and conditions within the union (degree of internal democracy and relation with the political system). The individual-level variables that the researcher has considered include socioeconomic conditions, professional training, control over the work situation, and degree of political and other socialization. The study employs information both from the historical reconstruction of the two union situations and from two surveys, one of them in 1979 and the other in 1984.

Begun June 1981. Completed 1984. El Colegio de México/CONACYT. Publications: *La acción obrera en Las Truchas* (México, D.F.: El Colegio de México, 1982); I. Roxborough and I. Bizberg, "Union Locals in México: The 'New Unionism' in Steel and Auto," *Journal of Latin American Studies* 15:1 (1983); I. Bizberg and F. Zapata, "Conciencia obrera y participación sindical en Las Truchas," *Estudios Sociológicos* 4 (1984).

240. ‡Augusto Bolívar Espinoza, ‡Rosalbina Garavito Elías, ‡Edmundo Jacobo Molina, ‡Jorge Martínez Aparicio (Dpto. de Economía, UAM-Azcapotzalco, Av. San Pablo 180, Col. Reynosa Tamps., Azcapotzalco, México, D.F. 02200)
The Process of Modernization in Mexican Society

Essential to any analysis of the relationship between the state and the labor movement and between the state and entrepreneurial groups, as well as to any diagnosis of Mexico's economic restructuring, is the availability of dependable data. This project involves gleaning these data from newspapers and journals dealing with both the public and private sectors, and analyzing ongoing events reported. The researchers hope the data will help identify constants and variables operating over long periods and will provide a higher level of confidence in analyses of the modernizing process in Mexico.

Begun Feb. 1984. EDC indefinite. UAM-Azcapotzalco.

241. ‡Mario Camberos, Martha Amalia Aguilar Tirado (Dpto. de Desarrollo, Centro de Investigación en Alimentación y Desarrollo, Priv. Dr. Aguilar 3, Col. Centenario, A.P. 1735, Hermosillo, Son.)
Characteristics of a Labor Force: Nogales, Sonora

This regional study of a labor force employs Marxist methodology to demonstrate the superiority of this methodology over conventional ones when analyzing the living conditions of the working class. The researchers hope that the project will also show the impact of the economic crisis on workers and working-class living conditions in Nogales after 1982. They hypothesize that the pattern of accumulation in Sonora, based on agricultural activities and influenced by its dependency relationship with the U.S. economy, has effected qualitative and quantitative changes in this labor force over the last 25 years. The methodology includes a definition of labor force, a review of various approaches to this topic, and the application of a questionnaire.

Begun June 1984. EDC Dec. 1985. CONACYT.

242. Roderic A. Camp (Dept. of Latin American Studies, Central College, Pella, IA 50219)
Public-Private Interests:
Entrepreneurs and the State in Mexico

This project focuses on the relationship between the private sector and the state in post-revolutionary Mexico. It analyzes the structure of entrepreneurial leadership, the background of leading businessmen, the influence of these individuals on public policy during the years under study, the ideas of a select, representative sample of entrepreneurs, and their interrelationships with one another. This project will focus on the evolution of the relationship between the private sector and the state and on the impact of businessmen on government policy; it will also examine their role in contributing to the solutions of Mexico's past and present problems from the point of view both of politicians and of entrepreneurs themselves.

Begun fall 1981. EDC spring 1985. Central College/Woodrow Wilson Fellowship.

243. María Elena Cardero García (IIS, Torre de Humanidades II, UNAM, C.U., México, D.F. 04510)
Recent Changes in the Mexican Banking System

This project continues earlier efforts to analyze the historical role of Mexico's financial system in the overall process of capital accumulation. It reviews certain hypotheses advanced to explain the nationalization of Mexico's banks, analyzes present directions in this process, and interprets their possible consequences.

Begun June 1984. EDC indefinite. Publications: *Patrón monetario y acumulación en México: nacionalización y control de cambios* (México, D.F.: Siglo XXI, forthcoming); *Endeudamiento y redespliegue de las* *relaciones económicas internacionales: reflexiones para una tarde nublada en América Latina* (México, D.F.: Programa Justo Sierra, forthcoming).

244. ‡Rosendo Casasola Ramírez, Víctor Noe Bata Fonseca (Centro de Relaciones Internacionales, Facultad de Ciencias Políticas y Sociales, UNAM, C.U., México, D.F. 04510)

State and Society in the Formulation of Foreign Policy

This attempt to discern the bases of social support for Mexico's foreign policy analyzes the character of the Mexican state, especially during the last three administrations; the economic crisis; and the role of civil society in orienting Mexico's foreign policy. The researchers examine bibliographic, newspaper, and documentary sources from the perspective of historical materialism, in particular from that of Gramsci's view of civil society, political society, and the societal alliance.

Begun Jan. 1983. EDC Dec. 1985. UNAM. Publication: "La política exterior de México y la crisis actual," *Relaciones Internacionales* 32 (1983).

245. ‡Sergio de la Peña Treviño (IIS, Torre de Humanidades II, 8° piso, UNAM, C.U., México, D.F. 04510), Carlos Schaffer (Facultad de Economía, UNAM, C.U., México, D.F. 04510)

Accumulation and the Reproduction of Labor

This project considers the conditions and consequences of accumulation as they have affected the reproduction of the labor force in two different historical periods: the period of primitive accumulation and the period of expanded accumulation. A hypothesis central to the study states that accumulation and the reproduction of the labor force combine in a complex relationship which causes production considerations to vary in importance, depending on social, cultural, and political considerations. The researchers are consulting primary and secondary documentary sources.

Begun Jan. 1984. EDC Dec. 1985. UNAM.

246. Martín de la Rosa (Center for U.S.-Mexican Studies, D-010, UCSD, La Jolla, CA 92093)

The Church and Social Conflict

This social history of the Catholic Church in Mexico from 1965 to 1979 analyzes approximately 30 conflicts, differing in scale and exemplifying contradictions both within the Church and in Mexican society as a whole. The study also examines the repercussions of social and political conflicts in the religious sphere and the way in which religious factors influence the social and political arenas.

Begun Sept. 1980. Completed 1984. Ford Foundation/Center for U.S.-Mexican Studies, UCSD. Publication: M. de la Rosa and C. Reilly, eds., *Religión y política en México* (México, D.F.: Siglo XXI, forthcoming).

247. Adrián de León Arias (Facultad de Economía, Edif. F, Núcleo de los Belenes, Univ. de Guadalajara, Guadalajara, Jal. 44280)

Regional Industrial Development and Labor Markets in Mexico

The goal of this study is to explain the sociohistorical relationships between types of sectoral specialization and labor markets; that is, the social use of labor in Mexico's most industrialized regions. The study's central hypothesis states that a distinct type of industrial specialization coincides historically with a specific kind of development (capitalism) and creates a diversity of salaried-worker categories while undermining non-salaried worker categories (leading to capital dependency). This comparative historical and economic study of the three most industrialized regions of Mexico — the states of México, Nuevo León, and Jalisco — draws on population and industrial censuses, historical statistics, bibliographic materials, and municipal archives.

Begun Aug. 1984. EDC Aug. 1985. Univ. de Guadalajara. Publication: "Política económica, estructura y migración," Cuadernos de Divulgación, 13 (Guadalajara: Univ. de Guadalajara).

248. ‡Norberto Gaxiola Carrasco, ‡Florencio Posadas Segura (IIES, Univ. Autónoma de Sinaloa, Península de Lucernilla 1172, Col. Balcones de Culiacán, A.P. 90, Culiacán, Sin.)

Political Participation of Agricultural Workers in Sinaloa

This study adopts a regional perspective in the examination of political behavior and political participation among Sinaloa's salaried agricultural workers. Over time this agricultural proletariat has been incorporated into the political system in various ways — as a component of the ruling structure, as a group controlled through a mediation structure, and as an autonomous actor. The researchers will analyze these workers' political activities, struggles, and ideological expressions within a framework defined by the relationship between civil society and political society, and that between political society and the state. Bibliographic searches will precede fieldwork, the application of questionnaires, and interviews with workers, union leaders, politicians, and government officials.

Begun Jan. 1984. EDC June 1985. Univ. Autónoma de Sinaloa/SEP. Publications: F. Posadas, "El concepto de campesino," *Ciencia y Universidad* 2 (June 1983); F. Posadas, "La ideología del proletariado agrícola," *Ciencia y Universidad* 3 (Sept. 1983); F. Posadas, "El proletariado agrícola en Sinaloa," edición especial del IIES/Univ. Autónoma de Sinaloa, forthcoming.

249. Merilee S. Grindle (Harvard Institute for International Development, Harvard Univ., 1737 Cambridge St., Cambridge, MA 02138)
Labor Migration and Employment Creation in Rural Mexico: Options for Policymakers

The research project involves an analysis of the root causes of out-migration from poor rural areas in Mexico and an assessment of opportunities to create employment in both agricultural and nonagricultural pursuits in these areas. Aimed at generating recommendations for policymakers who are concerned about expanding employment opportunities in Mexico's rural regions, the research will explore the following questions: What are the dimensions of rural unemployment and labor migration in rural Mexico? What might be done to generate employment opportunities in selected rural regions of Mexico? What results might be anticipated from pursuing selected options in specific socioeconomic regions of rural Mexico? What recommendations can be made to policymakers and informed publics in the United States and Mexico? The project will generate a book-length manuscript on labor migration and rural employment generation in Mexico and will seek to stimulate dialogue about its recommendations.

Begun June 1984. EDC June 1986. Lincoln Institute of Land Policy, Cambridge, Mass.

250. Emilia Janetti (CEI, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
The Mexican Social Accounting System: Pros and Cons

As long as public and private enterprises are considered together within the same social accounting categories, the economic, social, and political impacts of public enterprise will be impossible to separate from those of private economic activity. To understand government influences on the system, on the one hand, and private influences on the other, it is necessary to develop new ways of compiling, ordering and classifying national accounting data, especially because the accelerated growth of Mexico's government is a matter of national concern. This research attempts to explain the roles played by the different national accounting "actors" (households, public sector, business sector) so that government can conduct more effective budgeting and national planning. This study, which will make recommendations on the organization of Mexico's social accounting system, will analyze the format of the national accounting system proposed by the United Nations in the early 1970s, the content of statistical and national accounting data in Mexico, and the evolution and roles of Mexican public and private agencies.

Begun June 1984. EDC indefinite. El Colegio de México.

251. Fernando Jeannot Rossi (Dpto. de Economía, UAM-Azcapotzalco, Av. San Pablo 180, Col. Reynosa Tamps., Azcapotzalco, México, D.F. 02200)

Capital Accumulation and State Enterprise in Latin America

This project will specify hypotheses regarding the subordination of governmental economic policy to the real power structure; the subordination of a true development process to the government's development plan; state enterprises as instruments of capital accumulation which correspond to the specific type of surplus production in each social configuration; and the not-necessarily-profitable character of state enterprise. The other topics of the research include the relationship between the establishment of these enterprises and the accumulation of social capital on the one hand, and the legitimacy of the political system on the other; and the efficiency of these enterprises vis-à-vis the goals of social administration.

Begun Feb. 1982. Ongoing. UAM-Azcapotzalco. Publication: "Empresas paraestatales y sistemas económicos: hacia un concepto integrador del estado empresario," *Análisis Económico*, June 1983.

252. ‡Juan Felipe Leal, ‡Enrique Montalvo Ortega (Rectoría, UAM-Xochimilco, Calz. del Hueso 1100, Col. Villa Quietud, México, D.F. 04960)

The State and Agrarian Policy

The ultimate objective of this study is to identify the linkages between the various agrarian sectors in Mexico and the state. The authors also examine how agrarian policy is a function of these linkages. A volume reporting on the study is to be one of ten comprising a history of modern Mexico.

Begun Apr. 1984. EDC Apr. 1986. CONACYT/UAM-Xochimilco.

253. ‡François Lerin, ‡Laurence Tubiana, Anne Beaumond (LEI, INRA/IAMM, 3191 Route de Mende, 34060 Montpellier Cedex, France)

The Evolution of Local Power in Rural Veracruz, 1900-1984

This research, which focuses especially on the coffee-producing sector in central Veracruz, examines the intentions of local-level actors — the bourgeoisie, state administrators, and peasants — regarding the acquisition of power, and it also analyzes their strategies for acquiring power. A part of the LIDER program to analyze rural regional development, this project will draw information from interviews, family histories, newspapers, and archival sources.

Begun Jan. 1984. EDC Dec. 1985. INIREB/MRE-Coop./CIHEAM/INRA.

254. David R. Mares (Dept. of Political Science, Q-060, UCSD, La Jolla, CA 92093)
Mexico's Trade Policies and their Impact on Development

The researcher hypothesizes that Mexico's political elite has progressively lost the ability to make trade policy which supports national development plans. Developments in the international, U.S., and Mexican political economies apparently contributed to this decline as the country shifted from a development strategy of import substitution to one of diversified exports. Three factors in particular merit attention: the U.S. and Mexican positions in the changing international division of labor; the Mexican state's loss of control over inflation and the exchange rate during the 1970s; and the advancement of Mexico's political reform. The study is based empirically on the trade policies adopted by the Echeverrla, López Portillo, and de la Madrid administrations.

Begun Jan. 1983. EDC indefinite. Woodrow Wilson Center/UC MEXUS. Publication: "Trade Policy in Transitional Periods of Development Strategy: Mexico 1976-1982," submitted.

255. ‡Jean Meyer, ‡Louis Panabiere (Institut d'Etudes Mexicaines, Perpignan 66025, France)
Power Relations in Twentieth-Century Mexico

This study will attempt to analyze power relations between the post-revolutionary state and ordinarily ignored or underestimated forces, especially in the fields of artistic and intellectual life and the mass media. The Mexican leviathan might be less monolithic, intolerant, and omnipotent than is believed — and the democratization of Mexico may involve processes other than the formation of classical political structures.

Begun Sept. 1981. EDC Dec. 1984. CNRS/Université de Perpignan/ Colegio de Michoacán. Publication: *Pouvoir et Contre Pouvoir au Mexique Aujourd'hui*, forthcoming.

256. Kevin J. Middlebrook (Dept. of Political Science, Woodburn Hall 402, Indiana Univ., Bloomington, IN 47405)
The Political Economy of Organized Labor in Mexico, 1940-1982

This study examines the political and economic roles of organized labor in Mexico from 1940 to 1982. It focuses specifically on the impact of the state apparatus and corporatist social organizations (for example, the Confederación de Trabajadores de México) on labor union formation, labor mobilization, and the articulation of workers' demands. The study discusses the role of organized labor in Mexico's post-1940 economic development strategies. It also examines sources of change in labor force structure and labor organization, including the impact of economic crisis on the organized labor movement. These more general issues are evaluated in two case studies of the railroad workers' union and automobile industry workers' unions.

Begun 1976. Ongoing. Center for U.S.-Mexican Studies, UCSD/SSRC/Fulbright-Hayes Program/Indiana Univ. Publications: "International Implications of Labor Change: The Automobile Industry," in *Mexico's Political Economy: Challenges at Home and Abroad*, ed. Jorge I. Domínguez (Beverly Hills: Sage Publications, 1982); K. Erickson and K. Middlebrook, "The State and Organized Labor in Brazil and Mexico," in *Brazil and Mexico: Patterns in Late Development*, eds. Sylvia A. Hewlett and Richard S. Weinert (Philadelphia: ISHI Publications, 1982).

257. Enrique Montalvo Ortega (Rectoría, UAM-Xochimilco, Calz. del Hueso 1100, Col. Villa Quietud, México, D.F. 04960)
Crisis, Hegemonic Organization, and the Mexican State

Major crises in recent Mexican history and the processes which enabled the state to meet and resolve them constitute the focus of this study. Additional processes of interest to the researchers are those which allow the reproduction of hegemony in a society. Part of a broad history of the modern Mexican state, this research will result in a published volume based on information from bibliographic, newspaper, archival, and oral sources.

Begun Apr. 1984. EDC Apr. 1986. CONACYT/UAM-Xochimilco.

258. ‡Enrique Montalvo Ortega, ‡Alejandro Torres Abed (Rectoría, UAM-Xochimilco, Calz. del Hueso 1100, Col. Villa Quietud, México, D.F. 04960)
Industrialization and the Mexican State

This study examines the role of the Mexican state, the design and implementation of industrialization projects, and the implications of industrial development for the functioning and articulation of the state. The researchers are members of a team authoring a multi-volume history of the modern Mexican state. Information is derived from bibliographic, newspaper, archival, and oral sources.

Begun Apr. 1984. EDC Apr. 1986. CONACYT/UAM-Xochimilco.

259. Andrea Revueltas Peralta (Dpto. de Política y Cultura, UAM-Xochimilco, Calz. del Hueso 1100, Col. Villa Quietud, México, D.F. 04960)
The Modern Mexican State: A Comparative Analysis

Based on recently published studies of the Mexican state, this research identifies features of modernity specific to Mexico. It examines the functions of the state as the country's principal agent for modernization in areas such as administration, economic management, and social security; and it analyzes the state's independence from various social and pressure groups. The study's ultimate objective is to identify the sectors which comprise the state, their relationship to other hegemonic and popular sectors, and the mechanisms governing these relationships. It includes a close examination of the mechanisms of political control over civil society, the role of ideology in this area, and factors favoring either modernity or traditionalism. Once the characterization of the modern Mexican state is complete, it will permit comparative studies with other states.

Begun Sept. 1982. EDC Dec. 1984. UAM-Xochimilco. Publications: 'Ante la crisis: analogías y diferencias entre el caso polaco y México," *La Azotea del Betabel* 2 (Aug. 1983); "Aproximaciones a la obra teórico-política de José Revueltas," *Unomásuno,* 31 Dec. 1983; "Reflexiones en torno a la élite política mexicana," forthcoming.

260. Alan Riding (CEI, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
Overview of Contemporary Mexico

This project aims to produce a comprehensive overview of politics and society in contemporary Mexico. It will include an analysis of the most recent events on the Mexican scene, including observations about organized labor and its aging leader, Fidel Velázquez. The written product of this research will be an undergraduate-level text which will serve as an introduction to Mexico.

Begun Apr. 1983. EDC Jan. 1985. Publication: *Distant Neighbors: Portrait of the Mexicans* (New York: Alfred A. Knopf, Inc., forthcoming).

261. Angel Rivera Granados (IIS, UABC, Montecarlo y Atenas 151, Mexicali, B.C.N. 21180)
The Nationalization of Mexican Banks

Beginning with the governmental decrees nationalizing Mexico's banking industry, this research examined the economic, political, and social repercussions of this event in Mexico. It has considered public opinion, the government's stance, and the responses of those most directly affected. The study's methodology consisted of a content analysis of newspaper and journal articles appearing between Sept. 1, 1982 and Sept. 1, 1984.

Begun May 1984. Completed 1984. UABC.

262. Rose J. Spalding (Dept. of Political Science, DePaul Univ., 2323 N. Seminary Ave., Chicago, IL 60614)
The State and Agriculture:
The Politics of Food in Mexico

This project has two objectives: to analyze the processes shaping the development of food policy in Mexico, including the food deficit, the internationalization of capital in agriculture, and the structure of state power; and to evaluate the impact of recent food policies on nutrition levels and food production, focusing on the consequences of policy for the rural poor. The study begins in the mid-1960s, when a marked food deficit emerged, continues with preliminary efforts in the 1970s to stimulate increased food production, and then focuses on the creation of the Sistema Alimentario Mexicano in 1980 and the replacement of that program with the Programa Nacional de Alimentación in 1983. The researcher has drawn information from interviews with policymakers and agricultural producers, government documents, and several statistical sources, including the Food and Agriculture Organization, the Economic Commission on Latin America, the Dirección General de Economía Agrícola, the Instituto Nacional de Nutrición, and the Secretaría de Programación y Presupuesto.

Begun Aug. 1982. Ongoing. Faculty Research and Development Fund, DePaul Univ. Publications: "The Mexican Food Crisis: An Analysis of the Sistema Alimentario Mexicano," Research Report Series, 33 (La Jolla, Calif.: Center for U.S.-Mexican Studies, UCSD, 1984); "Structural Barriers to Food Programming: An Analysis of the Mexican Food System," submitted.

263. Patrick Staelens Guillot (Dpto. de Derecho, UAM-Azcapotzalco, Av. San Pablo 180, Col. Reynosa Tamps., Azcapotzalco, México, D.F. 02200)

Labor Relations in TNCs: The Mexican Case

What are the specific characteristics of labor relations in transnational corporations (TNCs), and what are the consequences for the labor force of the internationalization of capital? These questions are addressed in this project, in which the researcher will interview union and labor-relations representatives, as well as legal advisers on both sides, in 40 TNC subsidiaries in Mexico. The researcher is also reviewing the literature in search of additional information which might offer answers to these questions.

Begun July 1982. EDC Dec. 1985. UAM-Azcapotzalco. Publication: "El derecho del trabajo internacional: una aplicación inadecuada del sistema tradicional de los conflictos de leyes," Reporte de Investigación, 74 (México, D.F.: UAM-Azcapotzalco).

264. Carlos Tello (Maestría en Docencia Económica, UNAM, C.U., México, D.F. 04510)

Growth, Crisis, and Policy Options in the Mexican Economy

The present economic crisis in Mexico is part of a process of deterioration of the national economy that began to become apparent towards the end of the 1960s. Mexico is actually facing a crisis in its style of development and an exhaustion of its model of economic growth. The country now needs to undergo a restructuring of the relations between the state and society, and at least five items must be on that agenda:

democracy, the role of the public sector, the nature of dependency, the efficiency of production, and the question of inequality.

Begun Sept. 1984. EDC June 1985. Center for U.S.-Mexican Studies, UCSD.

265. Ricardo Tirado Segura (IIS, Torre de Humanidades II, 6° piso, UNAM, C.U., México, D.F. 04510)
Mexican Entrepreneurs and the State

This project will discuss the politicization of Mexican entrepreneurs during the last 15 years. As his central hypothesis, the researcher states that as a result of the conflicts of the 1970s and 1980s, Mexico's entrepreneurs have formed a new class, with a new political will, a new class purpose, and a new memory. These attributes have enabled them to overcome, at least to a degree, their traditional, reactionary response to the state's reformist initiatives. This transformation has profound implications for the social pact governing the relationship among the state, the economy, and Mexican society. The researcher complements his primary source of information, newspaper articles, with interviews with entrepreneurs and their leaders.

Begun Jan. 1984. EDC July 1985. UNAM. Publications: "Semblanza de las organizaciones empresariales mexicanas," *Estudios Políticos* 3:1 (Jan.-Mar. 1984); S. Cordero H., R. Santín, and R. Tirado, *El poder empresarial en México* (México, D.F.: Terra Nova, 1983).

266. Leonardo Valdés (Dpto. de Sociología, Area de Ciencia Política, UAM-Iztapalapa, Av. Purísima y Michoacán, México, D.F. 09340)
Economy and Politics in Mexico, 1976-1982

This project undertakes a reconstruction of the government's involvement in the national economy between 1976 and 1982, amidst the deepest economic crisis in Mexico during this century. It examines with special interest the participation of different social forces in structuring the government's economic policy during this period. The study's central hypothesis proposes unequal participation by social groups and classes in the design of governmental economic measures, as well as a differential impact of these measures on these various groups. The nationalization of the banks, reflecting a meeting of political and economic interests, also receives close attention.

Begun Jan. 1981. EDC July 1985. Publication: "La nacionalización de la banca y el control de cambios y la política económica de JLP," *IZTAPALAPA* 8 (May 1983).

267. Miguel S. Wionczek (El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
The Mexican Oil Industry, 1970-1982

This project, in which 12 research staff members participate, examines the recent economic performance of the Mexican oil industry, the relations between the industry and organized labor, and the industry's linkages with the Mexican state. The first volume of the study establishes a general conceptual framework through which to analyze relations between the state-owned oil enterprise (PEMEX) and the state itself; it reviews the changes in the world energy and hydrocarbon markets in the 1970s and early 1980s; and it assesses the development of the Mexican economy during the same period. The second volume examines the performance of PEMEX in exploration, production of crude, processing, domestic distribution, exportation, and production of petrochemicals. The third volume analyzes relations between the industry and the oil workers' union and between each of these institutions and the federal authorities. The fourth volume looks at international aspects of the Mexican oil industry.

Begun June 1980. EDC Dec. 1984. El Colegio de México.

Political Science

268. Gustavo Juan Alarcón Martínez (Dirección de Política Laboral, UCPEET, STPS, Dr. José Ma. Vértiz 96, 1° piso, México, D.F. 06170)

Social Security in Mexico

This study examines Mexico's Social Security Administration in terms of its historical antecedents, its juridical-institutional framework, and its contribution to the well-being of the Mexican population. The analysis includes observations on the future of social security in Mexico, as well as conclusions and recommendations.

Begun Jan. 1984. EDC Dec. 1984. STPS.

269. John J. Bailey (Dept. of Government, Georgetown Univ., Washington, DC 20057)

Presidency, Bureaucracy, and Policy in Mexico, 1970-Present

This project concerns politics and policymaking in Mexico since 1970. Its main premise is that the highly statist approach of the administrations since that time has both reflected and intensified dissensus among elites over development goals and strategies. The study gives special attention to the strategies of governance pursued by Echeverría, López Portillo, and de la Madrid (e.g., relations with the PRI, management of bureaucratic teams, and dealings with significant political forces). The work stresses four areas of policy: planning and budget, industry, agriculture, and foreign relations. As a general approach, the researcher sketches the policy issue as defined by significant elites, maps the bureaucratic terrain, then describes how each administration set goals and pursued them. The study draws data from the public record and from interviews.

Begun Jan. 1979. Ongoing. Georgetown Univ. Publications: "Presidency, Bureaucracy, and Administrative Reform in Mexico: The Secretariat of Programming and Budget," *Inter-American Economic Affairs* 34:1 (1980); "Public Budgeting in Mexico, 1970-1982," *Public Budgeting and Finance*, forthcoming.

270. Roger Bartra (IIS, Torre de Humanidades II, UNAM, C.U., México, D.F. 04510)
Culture and Political Power in Mexico

Through an analysis of contemporary political culture in Mexico and its role in directing conflicts toward mediating mechanisms and contexts, this research proposes to explain the legitimacy and consensus which now protect the Mexican political system.

Begun Jan. 1981. EDC Dec. 1986. Publications: "Viaje al centro de la derecha," *Nexos* 64 (1983); *Las redes imaginarias del poder político* (México, D.F.: Ediciones Era, 1981); *El reto de la izquierda* (México, D.F.: Grijalbo, 1982).

271. Roderic A. Camp (Dept. of Latin American Studies, Central College, Pella, IA 50219)
Organized Labor and the Mexican State: A Symbiotic Relationship?

This overview of the relationship between urban organized labor and the Mexican government from the 1920s to 1983 compares labor and political leadership and explores the consequences for the Mexican political system of changes in their relationship.

Begun June 1982. Completed 1984. NEH. Publication: "Organized Labor and the Mexican State: A Symbiotic Relationship?" *The Mexican Forum*, Oct. 1984.

272. ‡Manuel Canto, ‡Enrique Montalvo Ortega (Rectoría, UAM-Xochimilco, Calz. del Hueso 1100, Col. Villa Quietud, México, D.F. 04960)
State Interventionism in Modern Mexico

Part of a large research project chronicling the history of the modern Mexican state, this study seeks to measure the degree of state intervention in the arena of civil society and to identify the implications of this intervention for the political system as a whole. The results will be published as part of a 10-volume history of the contemporary Mexican state.

Begun Apr. 1984. EDC Apr. 1986. CONACYT/UAM-Xochimilco.

273. ‡Pablo Cásares Arrangoiz, ‡Enrique Montalvo Ortega (Rectoría, UAM-Xochimilco, Calz. del Hueso 1100, Col. Villa Quietud, México, D.F. 04960)
Social Communication and the State

Part of an effort to research the history of the contemporary Mexican state, this project seeks to identify the role of a policy of social communication in the state's response to the crisis of 1982. The study draws data from bibliographic, newspaper, archival, and oral sources.

Begun Apr. 1984. EDC Apr. 1986. CONACYT/UAM-Xochimilco.

274. ‡Luis Cervantes Jáuregui, Fernando Danel Janet (Dpto. de Sociología, UAM-Azcapotzalco, Av. San Pablo 180, Col. Reynosa Tamps., Azcapotzalco, México, D.F. 02200)
Corporatism and Public Policy in Mexico, 1970-1984

Focusing on decision-making as it relates to specific public policies and to relevant group interests, this analysis attempts to identify the composition and limitations of the Mexican political system. Adopting a functional perspective, the researchers hope to identify appropriate theoretical approaches appearing in recent literature on cooperativism, decision-making, policy, and the political system. A critique of Mexico based on several case studies will result.

Begun Oct. 1984. EDC Dec. 1986. UAM-Azcapotzalco. Publications: *Corporatismo y políticas públicas en México (1970-84);* L. Cervantes, "Crisis y modernización," *A* 9 (May-Aug. 1983).

275. ‡Víctor Manuel Durand, ‡Enrique Montalvo Ortega (Rectoría, UAM-Xochimilco, Calz. del Hueso 1100, Col. Villa Quietud, México, D.F. 04960)
The Labor Movement and the Mexican State

Focusing on the specific nature of the relationship between the state and various currents within the labor movement, this study seeks to determine the contribution of this relationship to the overall operation of the Mexican political system. Bibliographic, newspaper, archival, and oral sources serve to test hypotheses postulated in this study, part of a global examination of the modern Mexican state.

Begun Apr. 1984. EDC Apr. 1986. CONACYT/UAM-Xochimilco.

276. ‡Légé Claude Gilbert, ‡María del Carmen Pardo (CEI, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
Autonomy in Mexico's Public Administration Structure

This study will measure relative autonomy within the public administration structure in Mexico by posing and attempting to answer the following questions: What is the composition of the administrative elite in the current administration? How does this elite's behavior correspond to its professional training, party activity, etc.? And does the politicoadministrative elite identified in the study enjoy relative autonomy from other components of the Mexican political system? The researchers base their analysis on information found in *¿Quién es quién en la administración pública federal?* and on biographical data of members of the current Congress.

Begun Jan. 1984. EDC 1986.

277. ‡Silvia Gómez Tagle (CEH, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000), Olivia Flores Gallardo (Facultad de Ciencias Políticas y Sociales, UNAM, C.U., México, D.F. 04510)
Perspectives on Political Reform in Mexico, 1977-1982

This study utilizes the theory of the State and social classes to analyze political reform and changes in political representation, focusing on Mexico's electoral process from 1977 to 1982. The investigation draws evidence from party documents and press articles appearing during the electoral campaigns of 1979 and 1982; it will contrast parties' declarations and pronouncements with their concrete actions. The researchers will also perform a statistical analysis of election results from those two years. Related efforts include a critical analysis of official electoral statistics and possible electoral fraud in the Chamber of Deputies.

Begun May 1979. EDC indefinite. El Colegio de México. Publications: S. Gómez Tagle, "La reforma y el problema de la representación política de las clases sociales," in *El estado mexicano,* ed. J. Alonso (México, D.F.: CIESAS/Nueva Imagen, 1982); "Estado y reforma política," *Nueva Antropología* 25; "El Partido Demócrata Mexicano y su presencia en la sociedad 1979-1982," forthcoming.

278. ‡María del Rocío Guadarrama Olivera, Jorge Luis Ibarra (Dpto. de Estudios Políticos, El Colegio de Sonora, Obregón 54, Hermosillo, Son. 83000)
Regional Power Groups and the State

This project will examine the formation of regional power groups during the boom in commercial agriculture. One of the two research approaches will review the relationship between the federal government and regional political forces to identify the specific mechanisms of dependency. The second involves examining conflicts arising from the relationship between the state and civil society. Archival and bibliographic sources, as well as personal interviews, provide the data for this research.

Begun Nov. 1984. EDC Nov. 1986. Mexican government.

279. ‡Roberto Gutiérrez López, ‡María García Castro, ‡Cristina Larios Malo, ‡Esperanza Palma Cabrera (Dpto. de Sociología, UAM-Azcapotzalco, Av. San Pablo 180, Col. Reynosa Tamps., Azcapotzalco, México, D.F. 02200), ‡Edmundo Jacobo Molina (Dpto. de

Economía, UAM-Azcapotzalco, Av. San Pablo 180, Col. Reynosa Tamps., Azcapotzalco, México, D.F. 02200)

Political Culture in Present-Day Mexico

This project will identify the basic components of political culture in contemporary Mexican society, outline their historical development, and relate them to other aspects of Mexican society. Following a review of the ample literature on culture and national identity, the researchers will define political culture in a manner adequate to Mexico's complexity. They will then relate this concept to the national structure, to Mexico's many forms of social and political organization, and to the country's style of government. This analysis will serve as the basis for hypotheses about the future configuration of the Mexican state and the way in which cultural and ideological notions are assimilated and processed.

Begun Jan. 1984. EDC Jan. 1987. UAM-Azcapotzalco. Publications: E. Jacobo, "Reflexiones sobre la 'renovación' del sistema político mexicano," and R. Gutiérrez, "Nación y nacionalismo: las transformaciones de la historia," both in *A* 4:9 (1983); E. Jacobo and R. Gutiérrez, "Características de la cultura política en México contemporáneo (aproximación al problema)," Reporte de Investigación, UAM-Azcapotzalco.

280. ‡Alejandra Lajous, Ulises Beltrán, Enrique Cárdenas, Santiago Portilla (Unidad de la Crónica Presidencial, Presidencia de la República, Félix Cuevas 301, 9° piso, México, Méx. 03100)

Actions and Justifications of the de la Madrid Administration, 1982-1988

This study proposes to chronicle the first years of the de la Madrid administration in terms of decisions implemented and their social repercussions. Rather than undertake an exhaustive description, the researchers will attempt to provide a general sense of the period. The project, which will result in a published volume, will address events which influence public opinion and reveal the workings of this particular administration, and thus of the governmental process in general. While this study is not an official interpretation of events, it provides a new vehicle by which the government can describe its actions and interpret events. The authors will present incidents chronologically and will include explanatory sections to assist the reader in understanding the complex events and situations described.

Begun Aug. 1984. EDC Aug. 1985.

281. Gloria Leff Zimmerman (Dpto. de Sociología, UAM-Azcapotzalco, Av. San Pablo 180, Col. Reynosa Tamps., Azcapotzalco, México, D.F. 02200)

Party, State, and Hegemony in Mexico

This analysis of the relationship between the labor movement and the state in Mexico begins with the founding of the Mexican Revolutionary

Party (PRM) in 1915 and ends in 1938. Central to the study is the hypothesis that this relationship is organic and structural, a bond which proves politically resilient in times of crisis. Further, the institution of the presidency serves as the hub of the Mexican political system and of the nation, with the labor-state alliance deriving from the presidency as a key factor within the system. An analysis of state-labor agreements between 1915 and 1938 and of their impact on the national political system comprises the study's methodology.

Begun Jan. 1984. EDC Jan. 1985. UAM-Azcapotzalco. Publication: "El partido de la Revolución: aparato de hegemonía del estado mexicano," in *El estado mexicano*, comp. Jorge Alonso (México, D.F.: Nueva Imagen, 1982).

282. ‡Mónica Leñero Alvarez, ‡Rodolfo Ramírez García (CES, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
The PRI and Political Reform in Mexico, 1977-1978

This study identifies projects that various segments of the political bureaucracy have undertaken to revitalize the PRI, and it measures the impact of political reform within the party. Recent newspaper articles, documents from PRI organizations, and the discussions and publications of the PRI's 9th national assembly, held in 1978 in preparation for the 1979 presidential elections, provided the data for this effort.

Begun May 1983. EDC Dec. 1984. Consejo Latinoamericano de Ciencias Sociales.

283. Viviane B. de Márquez (CES, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
Policymaking and Policy Implementation in Mexico

This research considers the social process of policy formation with regard to family planning, nutrition, and anti-pollution measures. It examines the process from the very formulation of a problem through the bureaucratic institutionalizations of implemented programs.

Begun Jan. 1980. EDC Dec. 1984. IDRC, Canada/CONACYT. Publications: "Proceso organizacional y políticas estatales: un acercamiento metodológico," *Estudios Sociológicos* 2:4 (1984); "La planificación familiar en México: proceso de formación de una política pública," *Revista Mexicana de Sociología*, forthcoming; V. Márquez and R. Godau, "Burocracia y políticas públicas: una perspectiva desde América Latina," *Estudios Sociológicos* 1:2 (1983).

284. ‡Enrique Montalvo Ortega, ‡Francisco José Paoli Bolio (Rectoría, UAM-Xochimilco, Calz. del Hueso 1100, Col. Villa Quietud, México, D.F. 04960)
The State, Culture, and National Consolidation

The principal objective of this study is to determine the role of culture as a factor in national unity and as an element of state domination. A review of bibliographic, newspaper, and archival sources, combined with personal interviews, provides the information for this analysis, which forms part of a broader study of the modern Mexican state.

Begun Apr. 1984. EDC Apr. 1986. CONACYT/UAM-Xochimilco.

285. ‡Enrique Montalvo Ortega, ‡Ilán Semo (Rectoría, UAM-Xochimilco, Calz. del Hueso 1100, Col. Villa Quietud, México, D.F. 04960)

A Comparative Analysis of the Mexican State

Employing a comparative analysis in order to identify the specific characteristics of the Mexican state, these researchers are examining state structures in Cuba, Mexico, and the Soviet Union. Sources of information include archives, bibliographies, newspaper files, and interviews. The analysis forms part of a study of the contemporary Mexican state and complements the ongoing efforts of other members of a large research team.

Begun Apr. 1984. EDC Apr. 1986. CONACYT/UAM-Xochimilco.

286. ‡Enrique Montalvo Ortega, ‡Francisco Valdez (Rectoría, UAM-Xochimilco, Calz. del Hueso 1100, Col. Villa Quietud, México, D.F. 04960)

The State and Civil Society

This study focuses on the state and each of various sectors of civil society in Mexico in order to identify as integrating or marginalizing the type of relationship existing among them. The study will seek further to discern the processes of change or mutual readjustment in this relationship. The study forms part of a research project addressing the history of the modern Mexican state.

Begun Apr. 1984. EDC Apr. 1986. CONACYT/UAM-Xochimilco.

287. Charles A. Reilly (Center for U.S.-Mexican Studies, D-010, UCSD, La Jolla, CA 92093)

Intergovernmental Relations in Austere Times: Mexico and Brazil Compared

This study compares shifts in intergovernmental relations in light of current financial and fiscal crises. Mexico and Brazil embarked on a series of political reforms shortly before the dimensions of their current financial crises became apparent. Both countries have stood out as examples of exceptional state involvement in the financing of development, and both experienced periods of rapid, so-called "miracle" economic growth during the 1960s and 1970s. Each country has a legacy of clientelism at the local level which reinforces authoritarianism at the center, and each has a large, politically influential public-sector bureaucracy. Recent internal and external constraints have drastically altered their approaches to investment policy, social welfare policy, and fiscal relationships among the various levels of government. The study will examine prospects for liberalization and democratization as their post-miracle and post-oil-boom economies grapple with austerity.

Begun June 1983. Ongoing. Mellon Foundation. Publications: "Cultural Movements in Latin America: Sources of Political Change and Surrogates for Participation," in *Cultural and Political Change*, ed. M. Aranoff (New Brunswick, N.J.: Transaction Press, 1983); "Intergovernmental Relations in Austere Times" (Paper presented at the APSA Meeting, Washington, D.C., Sept. 1984).

288. Rafael J. Segovia (CEI, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
Political Sociology in Mexico

This project will attempt to develop a textbook for advanced high-school and college levels. The book will address the focal topics in political sociology, including political parties and party systems, elections, pressure groups, communications channels, and institutions and institutional analysis. The book's framework will emphasize the execution and legislative branches of government.

Begun Oct. 1984. EDC Dec. 1985.

289. ‡Mitchell A. Seligson (Dept. of Political Science, 315 Social Sciences, Univ. of Arizona, Tucson, AZ 85721), John A. Booth (Division of Social Sciences, UT-San Antonio, San Antonio, TX 78285)
Political Culture in Mexico

This project continues a previous study which raised fundamental questions regarding the nature of Mexico's political culture; the earlier research revealed high levels of support for democracy in a political culture which many scholars have labeled "authoritarian." The present study examines the relationship among education, political participation, and support for democratic norms at both the national and local levels. Whereas the prior study focused exclusively at the national level, this study analyzes attitudes toward local as well as national political institutions.

Begun May 1983. EDC May 1985. U.S. Dept. of Labor/Univ. of Arizona. Publication: "The Political Culture of Authoritarianism in Mexico: A Reexamination," *Latin American Research Review* 19 (1984):106-124.

290. Stephen J. Wager (History Dept., U.S. Military Academy, West Point, NY 10996)
The Mexican Military as a Social Agent of Development

This project examines how the Mexican military serves as a social agent for change, focusing on the civil action functions which it performs. The military's activities in this area range from disaster relief to the building of roads and schools. The study attempts to demonstrate the vital role played by the military in the overall development of the country, especially in outlying rural areas. The methodology consists simply of analyzing the military's civil action functions in detail. The researcher draws data from primary and secondary documentary sources, as well as from field research conducted in Mexico during 1980-1981. The second part of the paper deals with the political influence wielded by the military as a result of its role in society and its specific involvement in civic action. In particular, the researcher is interested in ascertaining the degree to which the military can influence the formulation of development policies.

Begun July 1982. EDC Jan. 1985. Project on U.S.-Mexico Relations, Stanford Univ. Publications: "The Military in Mexico," in *The Latin American Military Institution,* ed. Robert Wesson (New York: Praeger, forthcoming); "Basic Characteristics of the Modern Mexican Military," in *The Modern Mexican Military: A Reassessment,* ed. David Ronfeldt, Center for U.S.-Mexican Studies Monograph Series, 15 (La Jolla, Calif.: UCSD, 1984).

291. Miguel S. Wionczek (El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
Energy Conservation and Savings in Mexico: Experiences and Prospects

This study reviews and analyzes recent attempts to introduce programs of energy conservation and savings in Mexico. A policy-oriented study on the possibilities of energy conservation by sources and sectoral use, it emphasizes necessary technological changes and required institutional adjustments.

Begun June 1983. Completed 1984. El Colegio de México/Commission of the European Communities.

Sociology and Demography

292. ‡Gustavo Juan Alarcón Martínez, ‡Diana Rebeca Villarreal González (Dirección de Política Laboral, UCPEET, STPS, Dr. José Ma. Vértiz 96, 1° piso, México, D.F. 06170)
Women and Labor in Mexico

Based on a review of published articles and case studies with theoretical or methodological observations on female labor in Mexico, this study examines the role of women in Mexico's economy.

Begun Jan. 1984. Completed 1984. STPS.

293. ‡Francisco Alba (CEDDU, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000), ‡Joseph E. Potter (Dept. of Population Sciences, School of Public Health, Harvard Univ., Boston, MA 02115)

Development and Population in Mexico since 1940

This analytic survey of development patterns and population trends in Mexico will review the current demographic situation and its social and economic context; assess the content and record of existing policies; identify hidden implications of existing trends and policies; consider the impact of several policy choices; and identify key gaps in knowledge, thereby assisting in establishing priorities for research efforts. Making use of recently collected demographic survey data, the study utilizes a host of secondary sources that shed light on the institutional adaptations that were both consequence and cause of rapid population growth in the past decades.

Begun Jan. 1981. EDC Dec. 1984. El Colegio de México/The Population Council. Publication: F. Alba, "Demographic Accommodation and Economic Development in Mexico since 1940" (Paper presented at the North American Economics and Finance Association Annual Meeting, San Francisco, Dec. 1983).

294. Jesús Arroyo Alejandre (Facultad de Economía, Univ. de Guadalajara, David Alfaro Siqueiros 374-A, Colinas de la Normal, Guadalajara, Jal. 44270)

Emigration from West-Central Rural Mexico

This project examines the relationship between emigration of the rural labor force of west-central Mexico and certain characteristics of the region's agricultural and socioeconomic structures, employing empirical data to test the principal assumptions about the character of this relationship. Focusing on the interconnection between the emigration of the rural labor force and intraregional development, the researcher will employ multivariate analysis to relate migratory levels to agricultural structures and levels of development during the 1950s, 1960s, and 1970s. Census information may be supplemented by a survey of migrant families in Guadalajara.

Begun May 1983. EDC Apr. 1985. CONACYT/The Population Council.

295. ‡Lourdes Benería (Dept. of Economics, Winants Hall, Rutgers Univ., New Brunswick, NJ 08903), Martha Roldán (Canning 2417, 10. 'B', Buenos Aires, Argentina)

The Crossroads of Class and Gender:
A Study of Subcontracting and Industrial Homework
in Mexico City

The first part of this study is based on interviews with 140 women engaged in different types of industrial homework — from garment work to plastic polishing, assembly work of different kinds, and others. It deals with issues related to the nature of industrial homework, the conditions under which it takes place, and the family dynamics of households where such work is done. A study of modern decentralization of production in Mexico, it also reveals important information about the underground economy. The second part of the study concentrates on the subcontracting links which connect the several levels of firms directly or indirectly involved with the industrial homework studied. It is based on visits to 70 firms, ranging from local workshops to large companies and from family production units to large multinationals.

Begun Jan. 1981. EDC Dec. 1984. Ford Foundation/SSRC. Publications: *The Crossroads of Class and Gender: A Study of Subcontracting and Industrial Homework in Mexico City* (Chicago: Univ. of Chicago Press, forthcoming); L. Benería, "The Labor Process, Subcontracting and Labor Relations," in *The Incorporation of Women in the Latin American Labor Process*, eds. C. Moses and K. Young, forthcoming.

296. Guillermo Boils Morales (IIS, Torre de Humanidades II, 7° piso, UNAM, C.U., México, D.F. 04510)
Popular Housing in Rural Mexico

This study of housing in the Huasteca, Tabasco, and Michoacán seeks to determine the specific relationship between the physical space in which a group's daily life unfolds and this group's forms of family and social organization. The researcher is combining fieldwork and bibliographical reviews in his consideration of the following issues: physical appearance of housing; housing as it relates to society, the relations of production, and the region; peasant society and peasants' construction of their own homes; the impact of modern ideology on housing and the abandonment of traditional building methods; and the future of housing in the areas studied.

Begun Apr. 1981. EDC 1985. Publications: *Las casas campesinas en el porfiriato* (México, D.F.: Ed. SEP/Martín Casillas, 1982); "Arquitectura campesina," submitted.

297. Guillermo Boils Morales (IIS, Torre de Humanidades II, 7° piso, UNAM, C.U., México, D.F. 04510)
Housing in Rural Mexico

This study systematically examines the current housing shortage in rural Mexico and the strategies which rural populations employ in meeting their housing needs. Traditional housing in Mexico's agricultural sector is undergoing many changes which do not necessarily improve the material condition of the rural population. These changes reflect the ideology of modernization — the abandonment of traditional building designs and materials in favor of those prevailing in the urban centers — and increased construction costs for designs which in any case do not address the needs of the rural dweller and his environment. The study's objective is to develop a typology of technological, formal, and spatial components in rural housing which will be of use in the design and construction of dwellings in rural areas. Fieldwork and documentary sources provide the data for this research.

Begun Apr. 1982. EDC Dec. 1985. UNAM. Publication: *Las casas campesinas en el porfiriato* (México, D.F.: Editorial Martín Casillas/SEP, 1982).

298. Roderic A. Camp (Dept. of Latin American Studies, Central College, Pella, IA 50219)
Mexico's 500

This project involves the compilation of a "who's who" of four sets of important elites in contemporary Mexico: cultural, political, economic, and military. The researcher will select approximately 500 detailed biographies from those compiled for a long-term project designed to test the concept of a power elite in Mexico from 1884 to 1984. This particular work will focus on individuals from the four groups mentioned, especially those who have influenced Mexico in the last decade and whose influence is likely to continue throughout the 1980s. The study will include only persons living at the time the manuscript is completed.

Begun June 1979. EDC Sept. 1985.

299. Roderic A. Camp (Dept. of Latin American Studies, Central College, Pella, IA 50219)
Mexico's Military and Political Elites

This examination of civil-military relations in Mexico analyzes the Mexican officer corps since the 1930s. It focuses on the recruitment process, social background, region of birth, training, combat experience, and educational attainments of Mexican officers; and it identifies common elements in the backgrounds of officers reaching general rank. The study uses data on promotion to test civilian involvement and the regularity of advancement. It also compares military with political leaders and attempts to shed light on the broader civil-military relationship using new and original data from the Mexican Military Biography Project.

Begun May 1982. EDC May 1985. Center for the Study of Foreign Affairs, FSI/Woodrow Wilson Center. Publication: "Generals and Politicians in Mexico: A Preliminary Comparison," in *The Modern Mexican Military: A Reassessment*, ed. David F. Ronfeldt, Center for U.S.-Mexican Studies Monograph Series, 15 (La Jolla, Calif.: UCSD, 1984).

300. María de los Angeles Crummett (Helen Kellogg Institute for International Studies, Univ. of Notre Dame, Notre Dame, IN 46556)
Agrarian Class Structure and Migration:
A Comparative Analysis from Aguascalientes

This project analyzes the relationship between agrarian class structure and migration in three agricultural regions in Aguascalientes. Based on a sample survey of 211 households conducted by the author in 1982, the study argues that class characteristics of rural households are critical determinants of the rate and pattern of migration both within Mexico and to the United States. The researcher proposes that a proper conceptualization of class requires an analysis of the factors shaping the external structure of rural households, such as access to land and the buying and selling of labor power, as well as an analysis of household structure, organization, and composition. The study used a factor analytic test as an empirically consistent foundation for differentiating among rural groups. The results of the factor test strongly suggest that three major class types constitute the agrarian sector in Aguascalientes: a small sector of landed households highly integrated into commercial agriculture; a large group of households involved in subsistence production; and a large group of households completely lacking means of production — the landless. The study examines the unique levels and patterns of migration considered with the three classes identified in the empirical analysis.

Begun June 1981. Completed 1984. SSRC/IAF. Publication: "Agrarian Class Structure and Migration: The Case of Calvillo, Mexico," Working Papers on Women in International Development (East Lansing, Mich.: Michigan State Univ., forthcoming).

301. Omar Fonseca Moreno (Centro de Estudios de la Revolución Mexicana "Lázaro Cárdenas," Av. Lázaro Cárdenas y F. del Río s/n, Jiquilpan, Mich. 59510)

Socioeconomic and Cultural Change as a Result of Migration: Jaripo, Michoacán

This study will evaluate the socioeconomic and cultural changes which occur in a sending community as a result of three generations of migration to the U.S. Central to the study is the hypothesis that labor migration from the Jaripo region impacts not only the socioeconomic and cultural condition of the migrants themselves, but also that of their families who remain in the home community and receive remittances. Additionally, young people in the community are predisposed to migration due to the visibility of the socioeconomic advances enjoyed by migrants and their families. Interviews with occasional migrants in Jaripo and with migrants residing permanently in the U.S. complement archival and literature reviews.

Begun Sept. 1984. EDC Dec. 1985. Centro de Estudios de la Revolución Mexicana "Lázaro Cárdenas." Publications: L. Barjau, O. Fonseca, and L. Moreno, *¿Economías sin fronteras?* (Jiquilpan, Mich.: Centro de Estudios de la Revolución Mexicana "Lázaro Cárdenas," 1982); O. Fonseca and L. Moreno, *Trabajando en tierras ajenas . . . que eran nuestras. Jaripo pueblo de migrantes* (Jiquilpan, Mich.: Centro de Estudios de la Revolución Mexicana "Lázaro Cárdenas," forthcoming).

302. María C. Gallo Reynoso (CIESAS, Reforma 23-3, México, D.F. 01000)
Women Workers: The Composition and Transformation of a Female Labor Force

This study of women members of the labor force of a mid-sized city — Zamora, Michoacán — seeks to determine not only the number of women joining the economically active population, but also the manner in which their incorporation is effected, given the socioeconomic and labor transformations now underway in that city. The study also examines change in family organization as a factor of the incorporation of women into the salaried work force and the relationship between socioeconomic position and type of salaried employment for these women. In-depth interviews with 127 women workers, a survey of 801 workers (including 199 women), and reviews of the literature and census data provide the information for this synchronic analysis, as well as for a diachronic analysis over three generations of working women.

Begun Sept. 1979. EDC Apr. 1985. CIESAS/El Colegio de Michoacán.

303. ‡Brígida C. García Guzmán, ‡Orlandina Oliveira (CEDDU, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
Urbanization and Labor Markets, 1970-1980

This project analyzes the impact of the socioeconomic changes occurring during the 1970s on the composition and expansion of the labor force in various areas of Mexico. The first phase of research includes a study of migration, especially of women, and the role of migration in the reproduction in selected areas of rural domestic groups and urban popular sectors. Phase 2 involves a comparative analysis of the dynamics of the labor market in varying contexts from 1970 to 1980; it will attempt to show how both economic and demographic dynamics influence the social structure of major cities. The principal data sources are the 9th and 10th population censuses.

Begun July 1983. EDC July 1985. El Colegio de México. Publications: O. Oliveira, "Migración femenina, organización familiar y mercados laborales en México," *Comercio Exterior* 34:7 (July 1984); B. García, "Dinámica ocupacional rural y urbana en el sureste de México: 1970-1980," *Demografía y Economía* 18 (1984).

304. Roberto Ham-Chande (CEDDU, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
The Aging of the Mexican Population

While Mexico is demographically tilted toward the young, nearly 3 million Mexicans are 65 years of age or older, and less than 10% of these receive social security benefits. Combined with the country's sustained drop in fertility rates and its improving medical care, these figures suggest that Mexico's future population will be older in both absolute and relative terms. This project seeks to describe the condition of Mexico's aged population, to evaluate the future of the aged, and to address the role of the country's social security system.

Begun June 1984. Ongoing. Publication: R. Ham-Chande et al., *Aging and Social Security in Mexico* (Laxemburg, Austria: International Institute for Applied System Analysis).

305. Alberto Hernández Medina (Centro de Estudios Educativos, Av. Revolución 1291, México, D.F. 01040)
Value Systems in Present-Day Mexico

This researcher heads a team effort to study the beliefs and values of Mexico's youth regarding politics, religion, social behavior, family, etc. The research parallels similar studies being conducted worldwide and is based on a survey of nearly 2,000 individuals.

Begun Oct. 1982. Completed 1984. Publications: *Objetivos de los colegios jesuítas de México* (México, D.F., 1983); A. Hernández Medina and A. Rentería, *El perfil académico del personal docente en las universidades mexicanas de provincia* (México, D.F., 1982).

306. ‡Susana Lerner Sigal (CEDDU, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000), ‡Patrick Livenais, ‡Amore Quesnel (ORSTOM, 24 Rue Bayard, 75008 Paris, France)
Demographic Features and Agrarian Structure in Mexico

The primary objective of this study was to understand better the relationship between socioeconomic conditions in three agricultural areas in Mexico and the reproduction of populations within these areas. The researchers analyzed the participation of social groups in the productive structure and the varying forms of agricultural production in Mexico, especially those employed in the regions under study. The methodology also included the domestic group as a unit of analysis in data collection on the articulation between demographic and social reproduction. The specific regions studied were the Yaqui Valley in Sonora, the sisal-growing region of Yucatán, and the Zacatepec sugar-mill area in Morelos. Data sources include surveys, censuses, and interviews with key actors in each area.

Begun 1978. Completed 1984. El Colegio de México/-CONACYT/PISPAL. Publications: S. Lerner, A. Quesnel, F. Saavedra, and L. Geller, "Análisis de los datos de estudios de la población de la zona henequenera," forthcoming; S. Lerner and A. Quesnel, "La estructura familiar como expresión de condiciones de reproducción social y demográfica" (Paper presented at the VII Reunión del Grupo de Trabajo sobre Reproducción de la Población, Feb. 1982); S. Lerner and A. Quesnel, "El espacio familiar en la reproducción social: grupos domésticos residenciales y grupos de interacción. Algunas reflexiones a partir del estudio de la zona henequenera" (Presentation at the Seminario sobre Grupos Domésticos, Familias y Sociedad, Mexico City, July 1982).

307. Gustavo López Castro (Centro de Estudios Rurales, El Colegio de Michoacán, Av. Madero Sur 312, Zamora, Mich. 59600)
Migration Patterns in Two Villages

This comparative study of out-migration to the U.S. identifies migration patterns in two villages in Michoacán, one predominantly mestizo and the other primarily indigenous. The mestizo community is marked by commercial agriculture and irrigation, while the indigenous community supplements its harvest from rain-fed agriculture with cash-producing ethnic crafts. Both communities are in a labor sending region, where the intensity of migratory flows depends not on the psychosocial characteristics of the people, but on their articulation with the market economy and the degree of capitalization of their agriculture.

Begun Nov. 1984. EDC indefinite.

308. Pedro Moctezuma Barragán (Dpto. de Sociología, UAM-Azcapotzalco, Av. San Pablo 180, Col. Reynosa Tamps., Azcapotzalco, México, D.F. 02200)
Popular Urban Movements in Mexico

This study will describe mass movements in urban Mexico after the late 1960s, analyze structurally the recent urban struggles of Mexico's "popular classes," and examine specific conjunctures in the history of these urban movements. The present study hypothesizes that the problems of urbanization stem from the historical process of capital accumulation and that the demands of urban movements relate to the availability of primary consumer products, improved living conditions, and the development of democratic organizations and freedoms. The researcher has obtained evidence from newspaper files and through fieldwork.

Begun Oct. 1980. EDC Dec. 1985. UAM-Azcapotzalco. Publications: "El movimiento urbano popular mexicano," *Nueva Antropología* 24; "Las luchas urbano populares en la coyuntura actual," *Teoría y Política* 5 (1981); "Semblanza del movimiento urbano popular y la CONAMUP," in *Cuadernos Testimonios* 1, ed. P. Moctezuma (Chilpancingo, Gue.: Univ. Autónoma de Guerrero, 1983).

309. Lilia Marcela Moreno Silva (Centro de Estudios de la Revolución Mexicana "Lázaro Cárdenas," Av. Lázaro Cárdenas y F. del Río s/n, Jiquilpan, Mich. 59510)
Women Migrants from Michoacán to the U.S.: Changing Awareness

Hypothesizing that rural Mexican families undergo modifications in their social and family relations as wives and mothers are incorporated into the productive process of a more developed country, this study focuses on the migration of women from Jaripo, Michoacán to the U.S. agricultural sector. These modifications are very significant for such women, who previously received no remuneration for their labor; they result in a changing awareness which influences both family structure and home community. Interviews with migrant women from Jaripo will provide data on their places of origin, destinations, and socioeconomic condition; archival and bibliographic information will complement that obtained from interviews.

Begun Sept. 1984. EDC Dec. 1985. Centro de Estudios de la Revolución Mexicana "Lázaro Cárdenas." Publications: L. Barjau, O. Fonseca, and L. Moreno, *¿Economías sin fronteras?* (Jiquilpan, Mich.: Centro de Estudios de la Revolución Mexicana "Lázaro Cárdenas," 1982); O. Fonseca and L. Moreno, *Trabajando en tierras ajenas . . . que eran nuestras: Jaripo, pueblo de migrantes* (Jiquilpan, Mich.: Centro de Estudios de la Revolución Mexicana "Lázaro Cárdenas," forthcoming).

310. Mario Ortiz Gabriel (Instituto de Investigaciones Sociológicas, Labastida 114, A.P. 662, Univ. Autónoma "Benito Juárez," Oaxaca, Oax. 68000)

The Dynamic of Regional Development and Productive Relations in the Mixteca of Oaxaca

This project will outline a program for integrated development in the Mixteca region of the state of Oaxaca. This very poor and densely populated area possesses few natural resources, an unevenly distributed population, poor technology, and a broad mixture of indigenous groups. Recent changes in the factors of production brought about by migration and other phenomena indicate the need for measures allowing the reproduction of communities and the renewal of a regional dynamic. The study will also examine relations between communities, the impact of the central government in the region, market integration, and power groups. Sources include statistical information, ethnographic studies, and archival material.

Begun Jan. 1983. EDC Dec. 1984. SEP.

311. Jennifer M. Pearson (Puebla 379 #3, Col. Roma, México, D.F. 06760)

Family-Based Corrections: Women Prisoners and Their Families

Using the theoretical background of interpretative social theory combined with the Glaser-Strauss grounded theory research methodology, this field research examines prisons for women in Mexico. The researcher has collected data on day-to-day practices, policies, and penal philosophies in Mexican prisons and has concluded that Mexican prisons are based on an underlying philosophy of compassion and pity for the poor and the imprisoned that extends to practically all imprisoned persons. Identifying the source of this philosophy in Mexican folk traditions, and particularly family traditions, the researcher speculates that it could prove useful to penologists in advanced industrial nations.

Begun Sept. 1982. EDC Sept. 1986.

312. ‡James B. Pick (Graduate School of Management, UCR, Riverside, CA 92521), Edgar W. Butler (Dept. of Sociology, UCR, Riverside, CA 92521)

Socioeconomic Determinants of Fertility in Selected Mexican Regions, 1976-1977

This research examines the impact of socioeconomic variables on fertility for four regions of Mexico: the state of Baja California, the remainder of the Northwest, the Northeast, and the state of Jalisco. Drawn from the World Fertility Survey of 1976-77, the data are analyzed by age categories and marital status. The dependent variables include children ever born and children born in the last five years. The independent variables, referring to either respondent or spouse, include migration status, place of residence, education, literacy, and occupation. Besides determining the socioeconomic causes of fertility in the four regions, this study seeks to demonstrate the influence of migration on fertility and to relate research findings to a larger ongoing research project on Baja California.

Begun Mar. 1984. EDC June 1985. UCR-Mexico Collaborative Research and Training Group.

313. ‡María Teresa Pría Olavarrieta (Prospectiva Social, Fundación Javier Barros Sierra, A.P. 20061, México, D.F. 01000), Juan Angel Torres Sánchez (Prospectiva Económica, Fundación Javier Barros Sierra, A.P. 20061, México, D.F. 01000)

Project Mexico 2010

This project will outline several differing views of Mexico's future based on predictions offered by experts who discuss the country's priorities over the upcoming decades. It reviews problems which Mexico may face before the year 2010, and plausible alternatives for their resolution, in the areas of population size, housing, transportation, urbanization, communications, natural resources and the environment, energy, health and education, food supplies, the economy and unemployment, politics and society, culture and recreation, science and technology, microelectronics, biotechnology, and armaments. The methodology involves a systematic review of expert opinion, using Delfos, Compass, and TKJ.

Begun June 1984. EDC June 1986.

314. Schneider Reinhold (Institut fuer Soziologie, Free Univ. of Berlin, Babelsberger Str. 14-16, 1000, Berlin 31, Federal Republic of Germany)

Mexico's Agricultural Productive Structure and Migration

Part of a project on recent development in Mexico and migration to the U.S.-Mexico border area, the present study details the relationship between migration and changes in the productive structure over the last 25 years. The analysis is conducted on two levels: an investigation of the agricultural sector at the national and state levels, and a case study of a rain-fed agricultural area in the Zamoran Bajío. The researcher's central hypothesis states that migration is closely linked to changes in Mexico's agricultural productive sector.

Begun July 1984. EDC July 1986. Free Univ. of Berlin.

315. Jane R. Rubin-Kurtzman (Dept. of Sociology, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024)
**Prosperity and Adversity:
Female Participation in Mexico City's Labor Force, 1960-1980**

This study examines the effects of fluctuating economic conditions on female economic activity in Mexico City during the period 1963-1977. Unlike earlier research which attempted to consider the relationship between specific levels of economic development and the participation of women in the labor force, this study is concerned with changes in the amount and kind of female economic activity. The study examines these variables in Mexico City during a fifteen-year period characterized by growing economic instability and inflation, urban migration, significant advances in female education, and the beginning of a decline in fertility. These factors affect both the supply and demand for female labor and the demographic and economic household constraints which facilitate or discourage various types of female economic activity. Data for this research include PECFAL-Urbano (1963-64), Migration and Social Mobility Surveys, Phases A and B (1970-71)-Mujeres, and the Mexican Fertility Survey (1976-77).

Begun Sept. 1982. Completed 1984. IAF/The Population Council/Center for U.S.-Mexican Studies, UCSD/Dept. of Sociology, UCLA.

316. ‡María Elena Sánchez Azuara, ‡Ana Alicia Solís de Alba (Dpto. de Sociología, Area de Psicología Social, UAM-Iztapalapa, Av. Purísima y Michoacán, México, D.F. 09340)
A Sociopsychological Study of the Condition of Women in Mexico

This sociopsychological description of the role of Mexican women in education, labor, politics, and the family will identify the elements and mechanisms which place women in these roles and perpetuate their status. These variables may include the family, schools, and mass media. The researchers also hope to develop research methods which encompass the sociopsychological elements of Mexico's national reality.

Begun Sept. 1983. EDC Dec. 1988. UAM-Iztapalapa.

317. ‡María Elena Sánchez Azuara, ‡Ana Alicia Solís de Alba (Dpto. de Sociología, Area de Psicología Social, UAM-Iztapalapa, Av. Purísima y Michoacán, México, D.F. 09340)
A Sociopsychological Study of Working Women in Mexico City

Discussion groups and interviews with women employed for at least 20 years in Mexico City's industrial sector will provide the basis for this study of the economic, political, social, and psychological factors which determine the inclusion of women in the ranks of salaried workers. These factors have both a qualitative and quantitative impact on the roles and role adjustments of women in the working environment and their permanence in these roles. The analysis will compare these elements in several labor sectors.

Begun June 1984. EDC Dec. 1986. UAM-Iztapalapa.

318. ‡Henry A. Selby (Dept. of Anthropology, UT-Austin, Austin, TX 78712), Arthur D. Murphy (Dept. of Anthropology and Sociology, Baylor Univ., Waco, TX 76730)

Life in the Cities of Mexico

Quantitative research carried out in ten cities of Mexico (Reynosa, Tampico, Querétaro, San Luis Potosí, Mérida, Villahermosa, D.F., Mazatlán, Oaxaca, and Mexicali), along with qualitative work focused on Oaxaca and the metropolitan zone, are the basis for this study of the processes of social reproduction. The analysis has thus far centered on the demographic correlates of households in different positions and sectors, and further analysis will broaden the results to consider strategies of maintenance and survival among the urban working class. The data was collected in 1976-1979 by INDECO (Instituto Nacional del Desarrollo de la Comunidad).

Begun 1976. EDC 1985. INDECO/U.S. State Dept./NSF/CONACYT/Fulbright Foundation. Publications: "A Comparison of Household Income and Budgetary Patterns in Four Mexican Cities," *Urban Anthropology* 10 (1981):247-268; "The Household in the Secondary Cities of the Third World," in *Household: Form and Function*, eds. R. Netting et al. (Berkeley: Univ. of California Press, 1983).

319. Ana Alicia Solís de Alba (Dpto. de Sociología, Area de Psicología Social, UAM-Iztapalapa, Av. Purísima y Michoacán, México, D.F. 09340)

A Sociopsychological Model for the Study of the Mexican Family

This project seeks to develop a sociopsychological research model for the study of the Mexican family within different social classes. It also seeks to determine counseling approaches which can guide the professional practice of social psychology and other social sciences. The study is based on observation and analysis of the form and content of family relations in daily life and in the context of Mexico's various social classes and living conditions.

Begun Sept. 1983. EDC Dec. 1989.

320. Gustavo Verduzco Igartúa (CES, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
Agricultural Development and Urbanization in the Bajío of Zamora

Changes in the economic structure of the Zamoran Bajío have had repercussions in the area's labor market, in employment, and in migration patterns. This study examines the question of labor migration from this area to the U.S. using both primary data (derived from interviews with workers and employers) and secondary data, including information about regional economic and social variables. The researcher hopes to clarify the manner in which changes in the economic structure have tended to retain or expel various segments of the labor force, both in Zamora and in nearby communities.

Begun Jan. 1982. EDC Dec. 1984. El Colegio de Michoacán/-CIESAS/PISPAL. Publications: "Nuevas perspectivas en el estudio de la migración interna en México," in *Los factores del cambio demográfico en México* (México, D.F.: UNAM/Siglo XXI, 1984); "Crecimiento urbano y desarrollo regional: el caso de Zamora, Mich.," *Relaciones* 17 (winter, 1984).

321. Gustavo Verduzco Igartúa (CES, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
Urban-Rural Relations in Mexico: A Regional Analysis

This comparative analysis of socioeconomic development hypothesizes that the processes of change in different regional contexts in Mexico are a function of the ecology, agriculture, and degree of urbanization of each area. The study will emphasize changes in the employment structure, internal and international migration, and social mobility in each population. The researcher hopes to identify the characteristics within the socioeconomic dynamic which are region-specific. This information will complement the generally offered explanations of the impact of this dynamic and will explain the interlinkages of urban and rural problems.

To begin Jan. 1985. EDC Dec. 1986. El Colegio de México.

322. ‡Patricia G. Zukow, Patricia M. Greenfield (Dept. of Psychology, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024)
Comparative Study of Communicative Competence in Mexico

This project examines the universal and culture-specific aspects of the transition from nonverbal to verbal communication. The investigators conducted field research at two urban sites in the state of México and one rural one in Guanajuato. They did longitudinal studies of children at the one-word stage (between approximately one and two years of age) whose mothers had formal education ranging from four years or less of primary school to advanced secondary levels. The major data consisted of naturalistic videotapes of children interacting with their mothers and siblings in the home environment. From these videotapes, the researchers performed analyses of the nonverbal and verbal input from caregivers which might facilitate comprehension of messages for the child. They identified a possibly universal aspect of this process which confirms prior findings in the U.S. among middle-class families: caregivers in all settings and at all levels of education supplied the children with nonverbal information that might permit the child to make a translation of the linguistic code at the same time that they provided verbal information. The study also identified culture-specific aspects of this process, including the degree to which this information is explicitly supplied by the primary caregiver, by sibling caregivers, or serendipitously.

Begun 1981. Ongoing. NIMH/Spencer Foundation Grant. Publications: P. G. Zukow, "The Transition from Gestural to Linguistic Communication: Social Variation in a Rural-born Caregiver Population" (Paper delivered at the American Anthropological Association Meetings, Washington, D.C., 1982); P. G. Zukow, "An Intra-Ethnic Comparison of the Transition from Nonverbal to Verbal Communication: Two Case Studies in Central Mexico," in *Socialization and Language Acquisition*, eds. E. Ochs and B. B. Scheeffelin (Cambridge: Cambridge Univ. Press, forthcoming).

323. Patricia G. Zukow (Dept. of Psychology, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024)
Contribution of Siblings to the Emergence of Linguistic Reference in Central Mexico

This study examines the shift from representing events nonsymbolically to representing them symbolically, which occurs during the one-word period. Earlier work in the U.S. and in Mexico suggested that the primary caregiver's practices contribute significantly to a child's comprehension of language during this shift. This study sought to determine whether sibling as well as adult caregivers provide children with experiences that make apparent the relationship between nonsymbolic (nonverbal) signs and symbolic (verbal) signs. Sixteen families with children at various levels of the one-word period, approximately one to two years of age, participated in the study. Primary and sibling caregiver-child pairs were naturalistically videotaped in the home over a 9- to 12-month period at six-week intervals. All communication initiated by a caregiver to direct a child's attention was analyzed in terms of nonverbal indication (pointing, showing) and verbal labeling. Although not as complex as adult input, the results of this study indicate that sibling input taught the same language lessons as that of adults.

Begun 1981. Ongoing. NIMH/Spencer Foundation. Publication: "The Contribution of Siblings to the Emergence of Linguistic Representation in Central Mexico" (Paper presented at the Society for Research in Child Development Study Group Conference on Sibling Interaction across Cultures: Theoretical and Methodological Issues, Los Angeles, May 1985).

324. Patricia G. Zukow (Dept. of Psychology, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024)
The Emergence of Play:
Social Variations in Central Mexico

This study examines the emergence of play among the children of rural-born women in three different communities of Central Mexico (two urban sites in the state of México and one rural site in Guanajuato). The major data consist of videotapes of children interacting naturally with both mothers and sibling caregivers in their home environment. The children were at the one-word period of language development (between approximately one and two years of age), and the mothers' level of education varied (from four years or less of primary school to advanced levels). The research focused on the relationship between caregiver input and the child's performance, which was enhanced during interaction with a more competent person, regardless of variations in setting or the caregiver's level of education. The study's results support the contention that cultural knowledge is transmitted and emerges during social interaction with more competent persons, and they also confirm prior findings among middle-class families in the U.S. The results also suggest that siblings make a very important contribution to their younger siblings' social and cognitive development, especially in rural settings.

Begun 1981. Ongoing. NIMH/Spencer Foundation. Publications: "The Role of the Caregiver in the Emergence of Play Activities: Social Variation in a Rural-born Population" (Paper delivered at the Society for Research in Child Development Meetings, Detroit, Mich., 1983); "Sibling Caregiving and the Emergence of Play and Language in Central Mexico," forthcoming.

325. Patricia G. Zukow (Dept. of Psychology, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024)
Folk Theories of Comprehension and Caregiver Style
in a Rural-born Population in Central Mexico

This study involved interviewing rural-born mothers to elicit their beliefs and values about child rearing and child development. Differences in those beliefs and values seem to correspond to levels of education rather than to traditional upbringing. Less-educated women assume that if children do not understand, they cannot; highly educated women assume that if children do not comprehend, they can with help. These beliefs appear to be related to the caregivers' interactional style in cases of communicative breakdown. Highly educated women closely mirrored the well-documented style of care given by middle-class women in industrialized countries, who constantly monitor and prompt their children to achieve comprehension. This style appears sufficient but not necessary for the transition to language since almost all children everywhere learn to speak competently. The study describes and discusses empirical evidence and implications of stylistic differences.

Begun 1981. Ongoing. Spencer Foundation/NIMH. Publication: "Folk Theories of Comprehension and Caregiver Style in a Rural-born Population in Central Mexico" (Paper delivered at the American Anthropological Association Meetings, Chicago, Nov. 1983).

Urban Studies

326. Antonio Azuela de la Cueva (Dpto. de Sociología, UAM-Azcapotzalco, Av. San Pablo 180, Col. Reynosa Tamps., Azcapotzalco, México, D.F. 02200)
Irregular Settlements and the Law

This project addresses the relationship between the legal system and irregular settlements, a primary housing option for low-income urban groups in Mexico. Different social mechanisms, nearly all illegal, come into play in the founding of these settlements. The present study's hypothesis states that far from being "marginal" to the country's juridical structure, the juridical status of these settlements — that is, their illegality — gives them political status and determines their behavior in various types of political interaction.

Begun May 1982. EDC Dec. 1984. Publications: "La legislación del suelo urbano: ¿auge o crisis?" *Habitación* 7 (1983); "Hacia una sociología jurídica de la urbanización popular," *A* 10 (1984).

327. Vivienne L. Bennett (ILAS, UT-Austin, Austin, TX 78712)
The Political Economy of Urban Water Distribution: The Case of Monterrey

This project will attempt to demonstrate that the problems of urban water supply and distribution in Monterrey can be understood only by taking the analysis beyond obvious technical and financial dimensions to the political-economic context within which they arise. Monterrey has been suffering from severe water shortages, and hence rationing, since 1981. Two major projects are underway to provide the city with more water and better distribution. Two years of research have shown that Monterrey is undergoing a class struggle for water, a struggle which is mediated by the state. The major sources of data have been the Monterrey Water and Sewerage Company (Servicios de Agua y Drenaje de Monterrey), the Potable Water Commission (Comisión de Agua Potable de Monterrey), the city's newspapers, and a survey conducted during the summer of 1983 in 100 households in 20 neighborhoods.

Begun Jan. 1982. EDC Dec. 1985. ILAS.

328. †Edgar W. Butler (Dept. of Sociology, UCR, Riverside, CA 92521), Stephen D. McRae (Dept. of Earth Sciences, UCR, Riverside, CA 92521), James B. Pick (Graduate School of Management, UCR, Riverside, CA 92521)

A Comparative Analysis of the Growth of Mexican Cities

This project will examine a number of Mexican cities and attempt to identify the reasons for their location and how they fit into the larger distribution of cities and urban settlements in Mexico. The researchers will compare their findings to general theories of city location and to various empirically-based typologies of urban areas developed over the past several decades for U.S. cities. The first research systematically examining Mexican cities in a typological framework, this project will assess the validity of the theories and typologies developed for U.S. cities in the Mexican urban context. The project will use a variety of data from several sources for descriptive analyses, computer mapping, and multivariate analytic techniques. The analyses will attempt to differentiate among types of cities and kinds of areas within them. The study should reveal development opportunities and assist in regional planning efforts.

Begun July 1983. Ongoing. UC MEXUS/UCR.

329. Edgar W. Butler (Dept. of Sociology, UCR, Riverside, CA 92521), James B. Pick (Graduate School of Management, UCR, Riverside, CA 92521)

An Isolated Urban Area Undergoing Social Change: La Paz

The completion of the highway to the tip of Baja California is expected to have great significance in destroying the last remnants of the social isolation of La Paz. A baseline study accomplished in the late 1950s allows a comparison of the changes between that time and now. This research will attempt to ascertain how the completion of this highway will change the social structure and social life of La Paz. The study will focus on changes in communication patterns, social status, inequality, "social disorganization," leisure activities, and the impact of increased tourism on the native residents. The investigator derived data for this research from Mexican censuses, personal observations, and reports by other researchers.

Begun July 1981. EDC June 1985. UCR.

330. Priscilla Connolly (Dpto. de Sociología, UAM-Azcapotzalco, Av. San Pablo 180, Col. Reynosa Tamps., Azcapotzalco, México, D.F. 02200)

Urban Financial Policies in the Distrito Federal

This study evaluates budget and planning policies in the Distrito Federal, with emphasis on the period 1977-1982. The study focuses on administrative and fiscal questions in relation to the functional division between federal and local government; forms of investment and their implications for financing and the debt problem; the short- and medium-term effects of various policies implemented; a comparison of the 1977-1982 policy with that of previous administrations; and the implications of these issues for the deconcentration-decentralization debate. The main sources of data are official publications and statements, public records, the press, and legal documents.

Begun Jan. 1980. EDC indefinite. Publications: "El financiamiento de la capital," *Iztapalapa*, Mar. 1984; "Finanzas públicas y estado local," *A*, May 1984.

331. René Coulomb Bosc (Dpto. de Sociología, UAM-Azcapotzalco, Av. San Pablo 180, Col. Reynosa Tamps., Azcapotzalco, México, D.F. 02200)

Housing Policy in Mexico City

This study of urban development policy in downtown Mexico City (the area comprising the city as of 1940) focuses on a number of considerations: the conception of this area held by policymakers; the results of past urban development efforts; the impact on housing policy of increasing rents and land values; and the organization and politicization of groups seeking to regain control of this urban space. Included are the following urban barrios: Colonia Guerrero, Barrio de Tepito, Barrio de la Merced, Colonia Roma, Vecindades Centrales, and the Conjunto Tlatelolco.

Begun Jan. 1984. EDC Jan. 1986. UAM-Azcapotzalco. Publication: "Luchas populares por el control social del suelo," *Habitación* 7-8 (July-Aug. 1982).

332. Martín de la Rosa (CEFNOMEX, Abelardo Rodríguez 21, Zona del Río, Tijuana, B.C.N. 22320)

The Marginality of Mexico's Northern Border Urban Population: The Case of Tijuana

The accelerated growth rate of Tijuana's population which began in the 1960s has had several consequences for this city, one of the most important being uncontrolled urban growth. Despite frequent allusions to urban planning, no adequate policy exists for controlling the proliferation of irregular urban settlements, the "lost cities" of Tijuana. Municipal services for these areas — potable water, paved streets, adequate housing, and drainage systems — are limited, when they exist at all. Settlers in these areas, most of them recent immigrants to the city, enter into frequent struggles with local government to obtain these services. This study focuses on forms of organization among these settlers, which vary from neighborhood to neighborhood.

Begun Jan. 1983. Completed 1984.

333. Gustavo Garza (CEDDU, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
Urban Planning and Technological Change in Mexico: New Towns and Industrial Parks, 1953-1984

This project will analyze extensively the Mexican program of new towns and industrial parks. In so doing, the study will detail the role of the program as a device for industrial promotion and decentralization and define the potential contribution of this policy instrument to the more general objectives of scientific and technological development. The researcher argues that the system of 167 new towns and industrial parks is the most important spatial policy in Mexico and that it has strong technological implications. A survey of the 167 parks will assist in analyzing their principal characteristics, provide information about technological aspects of the firms located in these parks, and permit a technical analysis of the parks' infrastructure and general services.

Begun Sept. 1984. EDC Dec. 1986. IDRC, Canada.

334. ‡Alan G. Gilbert, ‡Ann Varley (Dept. of Geography, 26 Bedford Way, Univ. College London, London WC1H OAP, England)
Housing Tenure and the Urban Poor

The research aims to remedy the neglect of non-ownership in discussion of low-income urban housing: fewer poor people are owner-occupiers than rent or share accommodation, but research has heretofore concentrated on self-help housing in irregular settlements. The central aim of this project is to establish the relationship between tenure structure and the supply of housing and land: do people choose non-ownership, or do constraints on the availability of land and housing prevent them from acquiring their own homes? The research will take place in Guadalajara and Puebla: both cities are growing rapidly and have a large proportion of non-owners. The study will attempt to show what factors determine the extent of non-ownership in the housing market; describe the characteristics of renters and sharers; explain how the rental market is organized; determine how often non-owners change residence; and suggest the most appropriate forms of government intervention. Methodology will include literature reviews, interviews with Mexican academics and housing officials, and two questionnaire surveys of 200-300 people in two or three settlements in each city. A small survey of landlords will also be conducted.

To being Mar. 1985. EDC Feb. 1987. Publication: A. G. Gilbert, "Tenants of Self-Help Housing: Choice and Constraint in the Housing Markets of Less-Developed Countries," *Development and Change*, 1983, pp. 449-477.

335. ‡Iris Neumann, ‡Helen Rottmann (Institut fuer Soziologie, Free Univ. of Berlin, Babelsberger Str. 14-16, 1000 Berlin 31, Federal Republic of Germany)
Economic, Political, and Social Development in Zamora, Michoacán

Since the commercialization of its agricultural sector (especially strawberries) in the 1960s, the region around Zamora, Michoacán has experienced rapid development. As the region attracted migrants from neighboring states, the city experienced disordered growth and speculation with fertile land previously dedicated to agriculture. As part of the Free University of Berlin's research on recent development and northward migration in Mexico, this study examines Zamora's rapid growth and, through the use of observation and interviews, will document the city's recent economic, political, and social development.

Begun July 1984. EDC July 1986. Free Univ. of Berlin.

336. ‡Iván Restrepo Fernández (CECODES, Altadena 8, Col. Nápoles, México, D.F. 03810), William L. Rathje (Dept. of Anthropology, Univ. of Arizona, Tucson, AZ 85721)
Consumption Habits among the Inhabitants of the Distrito Federal

This study applied "garbology," an archaeological method for the study of household refuse, to the wastes of present-day Mexico City. This solid-waste analysis is providing a unique view of food and materials resource management in the households of the Federal District. It has revealed differences between what people say and what they do, and it has permitted an analysis of the material composition of household solid wastes, especially in comparison to those of the U.S. For example, the study reveals the degree to which residents of the city purchased milk substitutes during the 1980 milk shortage, and it has provided estimates of the level of consumption of alcoholic beverages. Finally, it has allowed the researchers to document purchases of items outside of Mexico by upper-income households.

Begun Jan. 1980. EDC Dec. 1985. Publication: *La basura: consumo y desperdicio en el Distrito Federal* (México, D.F.: CECODES, 1982).

337. ‡Héctor Salazar Sánchez (CEDDU, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
Urban Public Finances in Mexico, 1960-1979

This study analyzes the distribution and structure of public finance in mid-sized cities throughout Mexico. It seeks to determine whether the preconditions for a decentralized urban development process exist in Mexico and, if so, to identify a mode of redistributing public spending which takes into account the size and specialization of urban areas as well as the structure of public-sector urban finance. Censuses, questionnaires, and public budgets provide data for the analysis.

Begun Jan. 1983. EDC Dec. 1985. El Colegio de México.

338. Ann Varley (Dept. of Geography, Univ. College London, 26 Bedford Way, London WC1H OAP, England)
Regularization and Ejido Land in Mexico City

Since 1970 the Mexican government has been carrying out a program of regularization of illegal housing on ejido lands in urban areas. Regularization involves the provision (for a price) of legal property titles for housing plots in settlements which grew up on ejido land, thus contravening Mexico's agrarian reform laws which allocated ejidos to peasant communities for agricultural use and prohibited the sale of such lands. Through the regularization program, the state is effectively rewarding defiance of its own laws. This study seeks to explain actions in the regularization program in Mexico City and their impact on the low-income settlers of ejido lands. The study utilizes records from the Ministry of Agrarian Reform to examine the development of irregular settlements, while it employs documentary sources, interviews with agency officials, and a questionnaire survey to reveal the nature and consequences of regularization. One hundred fifty families who had acquired ejido land for housing purposes were interviewed in six case-study settlements.

Begun Oct. 1980. Completed 1984. SSRC., U.K. Publication: "Urbanization and Agrarian Law: The Case of Mexico City," *Bulletin of Latin American Research*, forthcoming.

339. Peter M. Ward (Dept. of Geography, Univ. College London, 26 Bedford Way, London WC1H OAP, England)
Politics, Planning, and Social Welfare in Mexico

This research compares the policies of three administrations — Echeverría's, López Portillo's, and de la Madrid's — regarding land and irregular settlements, the provision of services and health care, and urban planning. The analysis aims to identify the motives for growing government involvement in several aspects of providing for public welfare. It also will attempt to explain how different styles and policy priorities affect the conditions under which the poor live; to assess the importance of community mobilization and participation in determining who gets what; to identify the overt and covert aims of planning and servicing bureaucracies; and to evaluate the prospects for a genuine improvement in quality of life for the poor. The study examines both national and local policies in the case of Mexico City, and it makes use of interviews with high-ranking decision-makers in appropriate government departments and agencies in all three administrations. This research will also draw evidence from data gathered from 631 households in six irregular settlements of the capital during 1979.

Begun Aug. 1982. EDC Dec. 1984. British Academy/Univ. of London. Publications: A. Gilbert and P. M. Ward, *Housing, the State and the Poor: Policy and Practice in Three Latin American Cities* (Cambridge: Cambridge Univ. Press, 1984); P. M. Ward, *Politics, Planning and Social Welfare Provision in Mexico* (London: George Allen and Unwin, forthcoming).

II

MEXICO AND THE WORLD

International Economic Relations

340. ‡Maury E. Bredahl (Dept. of Agricultural Economics, 209 Mumford Hall, Univ. of Missouri-Columbia, Columbia, MO 65211), Nicolás Gutiérrez (Dpto. de Economía, Instituto Tecnológico y de Estudios Superiores, Sucursal de Correos "J," Monterrey, N.L. 64700)
Economic Analysis of U.S.-Mexican Agricultural Trade

This project analyzes the impact of Mexican and U.S. macroeconomic policies on trade in agricultural products. The impacts of the bilateral exchange rate, wage rates, technological change, and market structure on trade in fresh winter vegetables will be measured in an econometric model.

Begun June 1984. EDC June 1985. Agricultural Experiment Station, Univ. of Missouri.

341. David Brooks (Dpto. de Relaciones Internacionales, CEESTEM, Magnolia 39, San Jerónimo Lídice, México, D.F. 01020)
Evolution of the U.S. Economy

This study has a three-part objective: to analyze various aspects of economic evolution in the U.S.; to predict its future economic trends; and to identify the points at which these trends may hold implications for Mexico. The researcher postulates an interrelationship in which the most dynamic sector of the Mexican economy is tightly linked to the U.S. and in which Mexico's economic crisis and attempts at recovery produce effects in the U.S. economy. He also addresses the question of the "Taiwanization" of the Mexican economy.

Begun Jan. 1984. EDC indefinite. Publication: "El carácter de la recuperación económica de Estados Unidos," *Informe Relaciones Mexico-Estados Unidos* 1:4 (Jan.-Apr. 1984).

342. William E. Cole (Dept. of Economics, 508 Stokely Management Center, Univ. of Tennessee, Knoxville, TN 37996-0550)
Transfer of Soft Technologies from the TVA to Mexico

This study focuses on the transfer of soft technologies from the TVA to Mexico, especially to the Papaloapan and Tepalcatepec river basins. Soft technologies include the mandate establishing the agency; planning institutions and methods; management strategies and style; methods of coordinating the functions of a multi-purpose project; methods of integrating the work of other agencies; and operations at the "grass roots." The current stage compares agricultural research and extension in several regions.

Begun June 1981. EDC June 1985. Univ. of Tennessee. Publications: W. Cole, R. Sanders, and S. Neuse, "TVA: An International Administrative Example," *Public Administration Quarterly*, forthcoming; W. Cole and R. Sanders, "The Transfer of Soft Technologies from the Tennessee Valley Authority to Mexico," in *1982 Papers and Proceedings of the North American Economics and Finance Association*, 1982.

343. Priscilla Connolly (Dpto. de Sociología, UAM-Azcapotzalco, Av. San Pablo 180, Col. Reynosa Tamps., Azcapotzalco, México, D.F. 02200)
Contracting for Don Porfirio:
Mexico and the Pearson Empire

This study centers on the Mexican enterprises of the 1st Viscount Cowdray (W. D. Pearson) between 1880 and 1923. The project takes into account existing historical works on Cowdray's involvement in the diplomatic imbroglio relating to oil, Anglo-American relations, and the Mexican Revolution, but it focuses elsewhere. First, it examines the significance of the accumulation achieved in Mexico for the extension and diversification of the Pearson interests in Britain and overseas — the transformation of a Yorkshire family firm of general contractors into the present-day Pearson empire. Secondly, it analyzes the effects of these British interests on subsequent development in Mexico. In this regard, it emphasizes effects on the organization and spatial distribution of transport, communications, and energy on the one hand, and the nature and implications of relations between the Mexican government and foreign businessmen on the other. Apart from extensive secondary source material, the study will rely on archives, mainly in London, Mexico City, and the state of Veracruz.

Begun May 1984. Ongoing. UAM-Azcapotzalco.

344. ‡Charles K. Ebinger, ‡Penelope Hartland-Thunberg (CSIS, Georgetown Univ., 1800 K St. N.W., #400, Washington, DC 20006)
Origins of the Debt Crisis

This research examines the relationship between the rise in oil prices and Mexico's staggering foreign debt.

Begun Nov. 1983. Completed 1984. Publication: C. Ebinger and P. Hartland-Thunberg, eds., *Blood from a Stone: Banks, Petrodollars and Sovereign Debtors* (Lexington, Mass.: Lexington Books, forthcoming).

345. ‡Guy F. Erb (GFE Ltd., 1835 K St. N.W., Suite 700, Washington, DC 20006), ‡Cathryn L. Thorup (U.S.-Mexico Project, OCD, 1717 Massachusetts Ave. N.W., Suite 501, Washington, DC 20036)
Investment, Labor, and Technological Change
in U.S.-Mexican Relations

This research project forms part of the Overseas Development Council's U.S.-Mexico Project, a multi-year effort involving policy research and outreach on the bilateral relationship. A binational team of researchers will explore investment, labor, and technological change in U.S.-Mexican relations, emphasizing the role of women in the labor force. Participants in the project will include government, business, labor representatives, and academicians from both countries.

Begun Aug. 1984. EDC Dec. 1985. ODC. Publication: C. Thorup and G. Erb, eds., "Investment, Labor and Technological Change in U.S.-Mexican Relations," ODC Policy Perspectives (Washington, D.C.: ODC, forthcoming).

346. Khosrow Fatemi (Laredo State Univ., West Washington St., Laredo, TX 78040)
Mexico and OPEC

In trying to regain part of its lost power and prestige in international energy affairs, the Organization of Petroleum Exporting Countries (OPEC) has recently been quietly wooing potential new members, including Mexico. For its part, Mexico has been a more than willing partner in this process, for many reasons. Currently outside the decision-making process of OPEC, Mexico's energy policies are nonetheless often dictated by such decisions. Membership in OPEC would make Mexico part of the process and would enhance Mexico's leadership status in third-world affairs, particularly if it could portray itself as a champion of LDC causes in OPEC. This study analyzes relations between OPEC and Mexico, including the possibility of Mexico's membership.

Begun Sept. 1984. EDC Aug. 1985.

347. Richard G. Frederick (Center for U.S.-Mexican Studies, D-010, UCSD, La Jolla, CA 92093)
Alternative Approaches to U.S. Economic Assistance to ADCs in Latin America

This project will examine alternative approaches to the development finance problems of the advanced developing countries (ADCs) such as Mexico and Brazil. Since the debt crisis began over two years ago, no new formal mechanisms to meet their external capital needs have been developed, although commercial bank financing is declining. The research will analyze several proposed mechanisms, using the hypothesis that the U.S. government must play a significant role in filling this gap because of its critical political and economic interests in this group of countries. The methodology will review current U.S. policy, discuss the basic interests of the key participants in the crisis, and analyze the various proposals which have been suggested. Data sources will include official U.S. policy statements, speeches by leaders of ADCs, comments by leading commercial bankers, and journal and newspaper articles. The goal of the project is to recommend specific courses of action.

Begun Sept. 1984. EDC June 1985. Center for U.S.-Mexican Studies, UCSD.

348. ‡Gary Gereffi (Dept. of Sociology, Duke Univ., Durham, NC 27706), ‡Donald L. Wyman (Center for U.S.-Mexican Studies, D-010, UCSD, La Jolla, CA 92093)
Development Strategies in Latin America and Asia

This project proceeds from the premise that the newly industrializing countries (NICs) of Latin America and Asia are an ideal arena for constructing comparative intraregional and interregional hypotheses about development. These highly industrialized countries are characterized by varied development strategies, distinct geopolitical and cultural contexts, complex social structures, and changing forms of linkage with the international economy. Using an historico-structural approach, this project compares, across time and regions, the sequence and timing of development strategies; the structure of dependent development, especially transnational economic linkages; and the state and social coalitions as determinants of development strategies. The core group of countries includes Argentina, Brazil, and Mexico in Latin America, and the Philippines, South Korea, and Taiwan in Asia. The relationship of both sets of countries to the regions' hegemonic powers, the United States and Japan, is an important part of the inquiry.

Begun Apr. 1984. Ongoing. General Electric Foundation/Andrew W. Mellon Foundation/Rockefeller Foundation. Publications: "Development Strategies in Latin America and Asia" (Paper presented at the Development Strategies and Economic Institutions in Latin America and East Asia Workshop, San Diego, Dec. 1984); "The Determinants of Development Strategies in Latin America and Asia" (Paper for presentation at the Latin American Studies Association Meeting, Albuquerque, N.M., Apr. 1985).

349. Alicia Girón González (IIE, Torre de Humanidades II, UNAM, C.U., México, D.F. 04510)
Political and Economic Implications of Mexico's Foreign Debt

The financial crisis which developed in Mexico beginning in August 1982 cast doubt on the country's strategy of extensive borrowing abroad. The attempts to control the foreign debt through a combination of debt renegotiation and an IMF plan for stabilization underscore the present interdependency between Mexico's internal process of capital accumulation and international accumulation. This project seeks to document the transition in Mexico from a nationalistic to a transnationalistic model.

Begun Sept. 1984. EDC Dec. 1985. IIE, UNAM. Publications: *La deuda externa de México: teoría y praxis*, Cuadernos de Investigación (México, D.F.: IIE, UNAM, forthcoming); " Y el endeudamiento para quién?" *Problemas del Desarrollo*, forthcoming; "La banca transnacional y el petróleo en México," *Problemas del Desarrollo*, forthcoming.

350. Eduardo Gitli (Dpto. de Economía, UAM-Azcapotzalco, Av. San Pablo 180, Col. Reynosa Tamps., Azcapotzalco, México, D.F. 02200)
An Alternative for Mexico's Foreign Economic Relations: The Socialist Countries

This theoretical analysis of international economic relations in developing countries emphasizes Mexico's underutilization of potential economic links with socialist countries. Any move to reverse this pattern would involve revitalizing the concept of "mutual benefit" in Mexico and in the socialist countries.

Begun Dec. 1983. EDC Dec. 1985. UAM-Azcapotzalco.

351. ‡Manuel Gollas, Adalberto García-Rocha (CEE, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
Mexico's Participation in the Trade of Manufactures in the Caribbean Basin

This study analyzes the bilateral trade flows of manufactured goods in the Caribbean Basin, with the purpose of determining the potential of Mexico as a market for manufactured goods from other Caribbean Basin countries.

Begun July 1982. EDC Dec. 1985. IDB.

352. ‡Jimmye S. Hillman (Dept. of Agricultural Economics, College of Agriculture, Univ. of Arizona, Tucson, AZ 85721), Maury Bredahl (Dept. of Agricultural Economics, College of Agriculture, Univ. of Missouri-Columbia, Columbia, MO 65211)
Vegetable Production and Trade in Mexico vis-à-vis the United States Market

This study analyzes the winter-vegetable industry from an international perspective.

Begun July 1982. Completed 1984. Economic Research Service, USDA/Arizona Agricultural Experiment Station. Publications: J. Hillman and A. Schmitz, "Analyses of Mexican Winter Vegetables Market in the U.S.," submitted; M. Bredahl, J. Hillman, and A. Schmitz, "Rent Seeking in International Trade: The Great Tomato War," submitted; M. Bredahl, J. Hillman, and N. Gutiérrez, "Political Economy of Production and International Trade in Fresh Winter Vegetables," submitted.

353. ‡Jimmye S. Hillman (Dept. of Agricultural Economics, College of Agriculture, Univ. of Arizona, Tucson, AZ 85721), Maury E. Bredahl (Dept. of Agricultural Economics, Univ. of Missouri-Columbia, Columbia, MO 65201)
The Effects of Mexican Agriculture and Trade Policy on United States Agriculture

This short-term analysis of Mexican agricultural and trade policy began with a December 1983 meeting of the Agricultural Trade Consortium in Nogales, Arizona. The subject of that consortium was U.S.-Mexican agricultural trade relations.

Begun Jan. 1984. Ongoing.

354. ‡Wallace E. Huffman (Dept. of Economics, 478 Heady Hall, Iowa State Univ., Ames, IA 50011), ‡Steven J. Torok (Division of Agriculture, Arizona State Univ., Tempe, AZ 85287)
International Trade and Immigration:
U.S.-Mexican Agriculture

This project deals with the movement of labor and product in the agricultural sectors of three countries: Mexico, the United States, and Canada. The study attempts to obtain parameter estimates of the determinants of inter-country trade in the seasonal production of tomatoes, as well as to estimate the impact on the U.S. tomato trade of illegal migration from Mexico. The variables which this study measured include the excess demand for tomatoes in Canada and the U.S., excess demand for agricultural labor in the U.S., and excess supply of tomatoes and agricultural labor in Mexico. The research drew its data from reports of the INS and the USDA, covering the period 1964-1980.

Begun Sept. 1982. Completed 1984. USDA/Iowa Agriculture and Home Economics Experiment Station.

355. ‡François Lerin, ‡Laurence Tubiana, Benoit Daviron (LEI, INRA/IAMM, 3191 Route de Mende, 34060 Montpellier CEDEX, France)
Mexico and the World Coffee Market, 1928-1940

This research, a part of the LIDER program to study rural economic development, analyzes the impact of changes in the world coffee market on Mexico's coffee production, with particular emphasis on the region of central Veracruz. The study, utilizing statistical analysis of world and Mexican production, consumption, and trade figures, will evaluate the relationship between world market instability and the volume of production in Mexico, at both national and local levels. It will also address the evolution of this relationship over time and will examine the history of state intervention in this sector. Data sources will include census figures as well as the results of surveys conducted by INMECAFE, the FAO, and the International Coffee Organization.

Begun Jan. 1983. EDC Dec. 1984. ENSAM-IAMM.

356. ‡Eric Monke, Jimmye S. Hillman (Dept. of Agricultural Economics, College of Agriculture, Univ. of Arizona, Tucson, AZ 85721), Xicoténcatl Murrieta (Centro de Investigación y Desarrollo de los Recursos Naturales de Sonora, A.P. G47, Hermosillo, Son. 83240)
Technology Transfer between the U.S. and
Northwest Mexico: A Cost-Benefit Analysis

Over the past three decades, northwest Mexico has experienced substantial growth in agricultural production, much of which has relied on transfers of material, managerial, and financial resources from the U.S. This study will attempt to quantify the costs and benefits to the U.S. of these resource flows. The benefits to the U.S. economy comprise initial demands for inputs for investment projects, recurrent demands for agroindustrial sector products (such as seeds, machinery, and border transport and marketing facilities), and consumer benefits from the export of Mexican produce. Costs to the U.S. economy include the effects of increased Mexican production on prices for competitive products (such as winter vegetables and cotton) and the displacement of U.S. exports to Mexico or other countries. By determining whether net benefits are positive or negative, this study may have implications for the involvement of U.S. Land Grant institutions in the adaptation of U.S. technologies for use in other countries.

Begun Aug. 1983. EDC July 1986. Hatch funds.

357. ‡Cesáreo Morales, Gloria Abella (Dpto. de Relaciones Internacionales, CEESTEM, Magnolia 39, San Jerónimo Lídice, México, D.F. 10200)

Reindustrialization in the U.S.:
Consequences in Mexico

This study postulates that Mexico's economic crisis is occurring within the context of a new stage in U.S. industrialization. This analysis of the impact in Mexico of the new industrialization attempts to formulate Mexico's possible responses to this impact. The methodology includes a review by industrial sector and by company, first of U.S. businesses in Mexico, and then of U.S. companies outside of Mexico which have direct dealings in that country.

Begun Jan. 1984. EDC Dec. 1986. Publications: "México ante la nueva política industrial norteamericana," *Informe Relaciones México-Estados Unidos* 1:4 (Jan.-Apr. 1984); "La reindustrialización norteamericana y sus efectos sectoriales en México," *Informe Relaciones México-Estados Unidos*, forthcoming.

358. ‡Cesáreo Morales, Gloria Abella (Dpto. de Relaciones Internacionales, CEESTEM, Magnolia 39, San Jerónimo Lídice, México, D.F. 10200)

The Political Dimension in U.S.-Mexican Economic Relations

Economic evolution in the U.S. and in Mexico is the focus of this study, which analyzes the characteristics and consequences of this evolution in both countries and attempts to outline their possible responses to it. The researchers propose that many aspects of the bilateral relationship — migration, law-of-the-sea questions, and various other areas of conflict — arise within a political framework. This framework comprises the perceptions and actions of the two governments, which tend to differ and therefore tend to generate conflict. Moreover, each area of bilateral interaction develops its own particular nuances within this political framework.

Begun July 1984. EDC indefinite. Publications: "México: gobierno, estado y crisis," *Informe Relaciones México-Estados Unidos* 1:5 (Jan.-Apr. 1984); "El impacto norteamericano en la política económica de México," *Cuadernos Políticos* 38 (Oct.-Dec. 1983).

359. June Nash (Dept. of Anthropology, CCNY, Convent Ave. and 138th St., New York, NY 10031)
The International Division of Labor

This global study of the impacts of the restructuring of industry is currently focused on the U.S., particularly on how the flight of electronics and electrical machinery has affected economy and society in New England. Future stages of the study will examine the impacts of multinational corporations in Latin America, particularly Mexico.

Begun 1982. Ongoing. NSF. Publications: "Segmentation of the Work Process in the International Division of Labor," in *The Americas in the New International Division of Labor*, ed. Steven E. Sanderson (New York: Holmes and Meier); "The Impact of Worldwide Industrial Restructuring on a New England Community," in *Labor in the Capitalist World Economy* (Beverly Hills: Sage, forthcoming); "Cultural Hegemony and Economic Decline," forthcoming.

360. Devon Gerardo Peña (Dept. of Sociology, Palmer Hall, Colorado College, Colorado Springs, CO 80903)
Comparative Global Industrial Relations:
Mexico, Southeast Asia, and the U.S.

The goal of the project is to examine the organization of production and industrial relations in the electronics and textile industries with home bases in the U.S. and offshore sourcing installations in Mexico and Southeast Asia. Now in its formative theoretical stage, the project seeks to develop a comparative theoretical model for the analysis of global "Fordism" in The third World. The researcher is currently conducting a comprehensive review of relevant literature and plans to collect data through oral histories, survey interviews, and unstructured interviews with managerial and technical personnel. Data collection is planned for the Philippines (Bataan Export Processing Zone) and California's "Silicon Valley." The first phase of the research will result in the publication of an annotated bibliography on the subject.

Begun Sept. 1984. EDC Dec. 1987.

361. ‡Rogelio Ramírez de la O, Alberto Martínez González (CECODES, Altadena 8, Col. Nápoles, México, D.F. 03810)
Direct Foreign Investment and Foreign Trade in Mexico

This research hypothesizes that patterns of direct foreign investment in Mexico determine the patterns of companies' foreign trade and that these patterns vary from industry to industry. This study tests these two hypotheses through analyses of official data at the company level. If foreign investments do indeed determine a company's foreign trade, specific policies must address the conditions prevailing in each industrial sector.

Begun June 1980. Ongoing. CECODES. Publication: *De la improvisación al fracaso: la política de inversiones extranjeras en México* (México, D.F.: Océano/CECODES, 1983).

362. Edwin P. Reubens (CCNY, Convent Ave. and 138th St., New York, NY 10031)
The International Migration of Industry and People

This research concerns two current strong trends and their interrelations, namely the international redistribution of industry (shifts to Mexico and other NICs) and the international movements of population (especially from Mexico and other LDCs to the U.S. and other MDCs). The goal is to determine the net balance of costs and benefits from these simultaneous trends, at both ends of the movements, separately and in combination. The researcher hopes thereby to demonstrate the implications for public policy of "mobility conditions," "free" international trade, periods of transition for "sunset" and "sunrise" industries, the "brain drain" versus "overflows" of surplus personnel, remittances and return flows, and the prospect that these trends will reduce the pressures to emigrate. The study's methodologies include an analysis of records since 1950 for the international economy and for Mexico, Jamaica, and East Asia, as well as field interviews with business firms, labor leaders, government officials, local researchers, and journalists.

Begun Oct. 1984. EDC indefinite. East-West Center, Univ. of Hawaii.

363. Saskia Sassen-Koob (Dept. of Sociology, Queens College and The Graduate School, CUNY, New York, NY 11367)
Foreign Investment and Foreign Labor in Southern California

The Southern California region is becoming an alternative to the major foreign investment zones overseas, particularly Southeast Asia and the Caribbean Basin, primarily because it enjoys a new type of articulation with Mexico — not simply a quantitative expansion of the Border Industrialization Program, but a new qualitative transformation. The massive economic growth in this region over the last decade, both in high technology and in other manufacturing branches, reflects not only an expanding market for the products, but also a shift in the spatial organization of production. This shift has resulted partially from something akin to a new product cycle in high-technology industry, a phase that requires or benefits from proximity to technical and research centers. Growing constraints in industrial zones overseas (ranging from increased worker militancy to pressures from governments on foreign companies have also contributed to the shift, as has the availability of a range of crucial resources in the Southern California region (as well as in Texas, for example). These resources include, most notably, an abundance of industrial space on both sides of the border, abundant highly trained personnel, and cheap manual labor from Mexico and Asia.

Begun Jan. 1983. EDC Dec. 1984. Center for U.S.-Mexican Studies, UCSD/Graduate School of Architecture and Urban Planning, UCLA. Publications: "Capital Mobility and Labor Migration: Their Expression in Core Cities," in *Urbanization in the World System*, ed. Michael Timberlake (New York: Academic Press, forthcoming); "Direct Foreign Investment: A New Migration Push Factor?" in *Environment and Policy*, eds. D. Bennett and T. Muller (London: Pion, 1984).

364. Gabriel Székely (CEI, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
Perceptions about Mexico in Oil-Importing Industrialized Nations

This study will begin by analyzing the importance of Mexico as an oil supplier for Japan, Canada, and three European nations (the U.K., France, and Spain). Based on available literature and interviews with energy officials and scholars in each country, the research will attempt to detail these countries' perceptions and interests with regard to Mexico. In addition, the researcher plans to assess the degree to which oil has contributed to the diversification of Mexico's foreign relations, namely, the development of relations with countries other than the U.S.

Begun June 1983. EDC Dec. 1984. Publication: "Notas sobre la política energética de Canadá y México en los 1980s," *Foro Internacional*, Apr.-June 1984.

365. ‡Kurt Unger, Lilia Sumiko Kushida (CEE, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
Industrial and Technological Reorganization: Impacts in Mexico

Industrial stagnation in the advanced countries is a consequence of extensive diffusion of technology and a heightening of competitive pressures. This study examines one remedy being pursued, in addition to that of developing new technologies, for this industrial standstill: exploiting new industrial and commercial locations. The important actors in this process are transnational corporations and newly industrializing countries, such as Mexico.

Begun June 1984. EDC June 1987. El Colegio de México.

366. Van R. Whiting, Jr. (Dept. of Political Science, P.O. Box 1844, Brown Univ., Providence, RI 02912)
State Intervention in the Mexican Economy

This ongoing analysis of state intervention in developing economies has three components. The first examined the characteristics and consequences of technology transfer regulation in Mexico; the second has focused on the state vis-á-vis foreign direct investment in Mexico; and the third, recently initiated, compares the industrialization policies of Mexico and Brazil.

Begun 1977. Ongoing. Wriston Fellowship, Brown Univ. Publications: "The Politics of Technology Transfer," Center for U.S.-Mexican Studies Research Report Series, 37 (La Jolla, Calif.: Univ. of Calif., San Diego, 1984); "Markets and Bargains: Foreign Investment and Development Strategies in Mexico," in *Mexico's Economic Crisis: Challenges and Opportunities*, ed. Donald L. Wyman, Center for U.S.-Mexican Studies Monograph Series, 12 (La Jolla Calif.: Univ. of Calif., San Diego, 1983).

International Labor Migration

367. Rafael Guadalupe Alarcón Acosta (Centro de Estudios Antropológicos, El Colegio de Michoacán, Av. Madero Sur 310, Zamora, Mich. 59600)
Migration to the U.S. and Social Reproduction in the Bajío of Zamora

This project examines the relationship between migration to the United States and social reproduction in working-class families (peasants, laborers, artesans, day workers, etc.) in the Zamoran Bajío. Fieldwork and census data collected in two representative social settings — a rural community and an urban barrio — will elucidate the history of migration, migration among different socioeconomic groups, migration as it relates to family organization, the expenditure of migrant earnings, and the ideological and cultural changes induced by migration to the U.S.

Begun Sept. 1983. EDC Dec. 1985. CONACYT/AMEP. Publication: "Migración a los Estados Unidos por grupos sociales: el caso de Chavinda, Mich." (Bachelor's thesis, UAM-Iztapalapa, 1984).

368. Ricardo A. Anzaldúa Montoya (Center for U.S.-Mexican Studies, D-010, UCSD, La Jolla, CA 92093)
Organized Labor and Immigration during the Bracero Era

Historians of the Bracero Program in the United States have often noted the role of organized labor in bringing about the 1964 demise of this contract labor program. They have not, however, distinguished between the position of individual unions and that of the labor federations (which wield most of organized labor's political power), nor have they carefully scrutinized the development over time of the federations' position on the issue. This study shows that even though agricultural workers' unions opposed the Bracero Program as early as 1946, the labor federations lent no political weight to defeating the program until other groups, such as the social-welfare and church organizations, began agitating on behalf of farm workers. The researcher hypothesizes that the labor elite dragged its feet on this issue not only because agricultural workers lie outside labor's traditional constituency, but also because the urban workers who make up the overwhelming majority of union members have an interest in keeping the cost of agricultural products low. Sources for the study include labor newspapers and other publications of the era, unpublished documentary material from the archives of the AFL-CIO, the National Farm Labor Union, and government documents.

Begun Sept. 1981. EDC Sept. 1985. Publication: "Organized Labor in the U.S. and the Bracero Program: Collaborationism and Contract Labor, 1942-1965," submitted.

369. ‡Guido A. Barrientos, ‡Harmon M. Hosch, Adolfo J. Alvarez, G. William Lucker (Dept. of Psychology, UTEP, El Paso, TX 79968)
Employment Opportunities in Mexico for Undocumented Border-Crossers as a Function of Manpower Needs

Previous study by this project's researchers has revealed that the majority of Mexican illegal border-crossers do not intend to settle permanently in the U.S. They keep their family and loyalty ties in Mexico and would remain there if it provided them the opportunity to earn a living. This study will attempt to determine the existing manpower needs of Mexico and those that will be created with the implementation of Mexico's 1983-1988 National Development Plan *(Plan Nacional de Desarrollo 1983-1988)*; it will investigate the willingness of the border-crossers to obtain vocational training at a federal correctional institution in occupations for which a labor demand exists and will persist in Mexico; and it will determine the attitudes of Mexican industrialists concerning the hiring of border-crossers who have received vocational training in such a program. The results will provide the U.S. Bureau of Prisons with a vocational training program for Mexico's undocumented workers. The researchers plan to administer a questionnaire to one hundred Mexican nationals convicted of illegal entry into the U.S. and incarcerated for that reason only at La Tuna Federal Correctional Institution.

Begun July 1983. EDC Sept. 1985. U.S. Bureau of Prisons.

370. ‡Frank D. Bean (Dept. of Sociology, 436 Burdine Hall, UT-Austin, Austin, TX 78712), ‡Harley L. Browning (Population Research Center, Main Bldg. 1800, UT-Austin, Austin, TX 78712)

Impacts of Mexican Migration on Latin American (Mexican- and U.S.-Origin) Populations

This program focuses on the special significance for the U.S. of Mexican-origin populations. Research covers the growing number of undocumented workers, the impact on the U.S. of the financial and economic problems of Mexico, and the demographic factors of migration, fertility, and the growth of work-entry populations.

Begun Sept. 1983. EDC Aug. 1986.

371. Frank D. Bean (Dept. of Sociology, 436 Burdine Hall, UT-Austin, Austin, TX 78712)

Illegal Mexican Migrants and Mexican-American Earnings

The research has three purposes: to estimate the size of the undocumented population of Mexican origin in the SMSAs (and in the state-level residual nonmetropolitan areas) of the U.S. in 1980; to estimate the degree to which the characteristics of metropolitan labor markets affected the number of undocumented Mexicans (especially males) counted in the 1980 census in those labor markets; and to establish directly the effect of undocumented workers on the employment and earnings of the legally resident Mexican-American and (where appropriate) other racial and ethnic minority male populations in such labor markets. The results of the second phase of the analysis, together with the estimates of the counted undocumented population, will constitute the basis for an econometric model of labor demand that can be used to estimate the effects of undocumented migration on the earnings of legally resident Mexican American and other workers.

Begun Sept. 1984. EDC Aug. 1986.

372. Luisa María Benítez Loveman (Subdirección de Crecimiento Social, CONAPO, Secretaría de Gobernación, Circular de Morelia 8, 4° piso, Col. Roma, México, D.F. 06700)

International Migration as It Affects Mexico

The goal of this research was to define a Mexican policy on international migration. To achieve this goal, the research attempted to identify the primary types of international migrants within Mexico, trends in the migratory process, the causes of international migration, and the perspectives and implications for the migrants themselves. The methodological approach was to proceed from the general to the specific, including the major types of migrants — the undocumented in the North and refugees in the Southeast. A literature review provided the collection of information for this analysis.

Begun Nov. 1983. Completed 1984.

373. Marilyn B. Bowman (Dept. of History, 614 Social Sciences, Univ. of Minnesota, 267 19th Ave. South, Minneapolis, MN 55455)
Undocumented Migration on Mexico's Southern Border, 1931-1941

This project focuses on attempts by the Mexican government to halt the undocumented migration of Guatemalans to the coffee plantations of the Soconusco during the Depression era. It examines national immigration policy as it pertains to international capital and an international labor force. The study compares the Guatemalan migration experience with Mexican undocumented migration and attempts by the U.S. to regulate it during the same period. Sources include documents from the archives of the Secretaría de Relaciones Exteriores and the AGN in Mexico City and from the Archivo de Centroamérica in Guatemala.

Begun July 1982. EDC July 1985.

374. Leo R. Chávez (Center for U.S.-Mexican Studies, D-010, UCSD, La Jolla, CA 92093)
Immigration, Health Care, and Household Structure among Mexican Immigrants

This project encompasses two studies: the first continues an examination of the social, cultural, and economic consequences of Mexican immigration (with special emphasis on health-related issues); the second examines household composition and structure among Mexican immigrants. Both studies draw data principally from 2,103 interviews with Mexican immigrants living in San Diego County.

Begun July 1983. EDC Mar. 1985. Rockefeller Foundation/NSF. Publications: W. A. Cornelius, L. R. Chávez, and O. W. Jones, "Health Problems and Health-Service Utilization among Mexican Immigrants: The Case of San Diego," submitted; L. R. Chávez, "Undocumented Immigrants and Access to Health Services: A Game of Pass the Buck," *Migration Today* 11 (1983).

375. ‡Wayne A. Cornelius (Center for U.S.-Mexican Studies, D-010, UCSD, La Jolla, CA 92093), Jeffrey Avina (3638 24th St., No. 3, San Francisco, CA 94110), Marla Patricia Fernández Kelly (Center for U.S.-Mexican Studies, D-010, UCSD, La Jolla, CA 92093), Richard Mines (2131 University Ave., Rm. 306, Berkeley, CA 94703), David L. Runsten (2918 Wheeler St., Berkeley, CA 94705)
The Role of Mexican Labor in the California Economy: An Exploratory Study

This comparative study of the structure and functioning of immigrant-dominated labor markets in the San Diego, Los Angeles-Orange County, and San Francisco Bay areas focuses on seven nonagricultural sectors (hotels, restaurants, building and landscape maintenance, food processing, electronics assembly, shoe and leather manufacturing, and construction). The researchers have conducted interviews in 177 firms with employers, production workers, and labor union representatives and will analyze data at the level of firms and industries, as well as the experiences of individual workers. The study seeks to document and explain different paths to reliance upon immigration labor: how certain firms and industries have evolved, how their labor requirements have changed, and how they became increasingly dependent upon foreign-born labor (especially undocumented immigrants from Mexico). The research also examines the effects of government interventions (INS raids, restrictive immigration legislation, wage and labor standards enforcement, etc.) upon employers' hiring practices and analyzes structural changes in industries and in the U.S. labor force which may influence future demand for immigrant labor.

Begun May 1982. EDC May 1985. Sloan Foundation/Rosenberg Foundation/Ford Foundation/UC MEXUS. Publications: W. A. Cornelius, "The Role of Mexican Labor in the U.S. Economy: Two Generations of Research," in *The Urban Informal Sector in Center and Periphery*, ed. Alejandro Portes (Baltimore, Md.: The Johns Hopkins University Press, 1984); R. Mines, "Mexican Immigrants: The Labor Market Issue," in *Mexico-U.S. Economic Relations*, ed. P. Musgrave, forthcoming.

376. ‡Margo C. De Ley (Dept. of Chicano Studies, 3022 Foreign Languages Bldg., Univ. of Illinois at Urbana-Champaign, Urbana, IL 61801), ‡Priscilla Handy (Dept. of Sociology, 329 Lincoln Hall, Univ. of Illinois at Urbana-Champaign, Urbana, IL 61801)
Undocumented Women Migrants:
Some Recent Studies Compared

The paper compares eight recent surveys of undocumented immigrants to the United States, using the 1981 De Ley-Simon survey of the undocumented in Los Angeles as a basis for comparing six other surveys conducted in Los Angeles and one in New York City. The study discusses the importance of women in the flow of undocumented immigrants from Mexico, as well as the difficulty of surveying them. The researchers compare the findings of those surveys with regard to length of residence, age, educational attainment, English proficiency, employment history, marital status, and number of children. The comparison confirms the findings of the De Ley-Simon survey — that many unmarried women are migrating for their own economic reasons rather than for family-related reasons.

Begun Dec. 1983. EDC Dec. 1984. Univ. of Illinois at Urbana-Champaign.

377. ‡Margo C. De Ley (Dept. of Chicano Studies, 3022 Foreign Languages Bldg., Univ. of Illinois at Urbana-Champaign, Urbana, IL 61801), ‡Priscilla Handy (Dept. of Sociology, 329 Lincoln Hall, Univ. of Illinois at Urbana-Champaign, Urbana, IL 61801)
The Role of Women's Kinship and Friendship Networks
in Undocumented Mexican Migration

A survey of undocumented Mexican women workers in Los Angeles, this research contradicts the popularly held view that such migrants abuse publicly-financed services and assistance programs. It shows rather that they rely on family and friends to find work, for support between jobs, and for child care. The project analyzes how the migrants' length of residence in the U.S. affects their use of personal networks vs. taxpayer-funded programs, the way in which different patterns of network use emerge among subgroups of illegal women migrants, and other issues related to the role of such networks in undocumented migration from Mexico.

Begun May 1984. Ongoing. Univ. of Illinois at Urbana-Champaign.

378. ‡Margo C. De Ley (Dept. of Chicano Studies, 3022 Foreign Languages Bldg., Univ. of Illinois at Urbana-Champaign, Urbana, IL 61801), ‡Rita J. Simon (School of Law, American Univ., Washington, DC 20016)

The Work Experience of Undocumented Mexican Women Migrants in Los Angeles

In 1981, the researchers conducted a survey of 698 Mexican-born women, approximately two-thirds undocumented, who were living in the Los Angeles area and had worked at some time during the 5 years preceding the survey. They obtained the sample through a variety of methods, including some door-to-door canvassing. The study gathered demographic information, generated data on migration patterns and motivation, compared the migrants' use of publicly-financed services and aid programs with their dependence on personal networks, and explored their experiences, attitudes, and behavior in the workplace.

Begun July 1980. Completed 1984. Univ. of Illinois/Ford Foundation/Rosenberg Foundation. Publication: "The Work Experience of Undocumented Mexican Women in Los Angeles," *International Migration Review,* fall 1984.

379. Barbara A. Driscoll (CEFNOMEX, Abelardo Rodríguez 21, Zona del Río, Tijuana, B.C.N. 22320)

The Railroad Bracero Program of World War II

During the Second World War, the Bracero Program had a short-lived but very important nonagricultural component. This program administered the recruitment in Mexico of workers for the maintenance of railways in the United States. Although the program lasted only two years (from 1943 to 1945) it represents the only documented instance in which the U.S. government sponsored and administered the recruitment and migration of nonagricultural workers from Mexico to the United States. Originally conceived as a temporary companion to the agricultural Bracero Program, the railroad worker plan soon became autonomous. This project will document the program, analyze its relationship to the agricultural component, and attempt to demonstrate its significance for U.S.-Mexican relations.

Begun 1980. EDC indefinite.

380. Jorge Durand Arp-Nisen (Centro de Estudios Antropológicos, El Colegio de Michoacán, Av. Morelos Sur 122, Zamora, Mich. 59600)
Labor Migration to the United States

The industrial labor sectors of Zacapú, Michoacán are the object of this study of migratory processes. Zacapú is the site of a large factory (Celanese), which has produced chemical products for over forty years, employing a labor force in excess of 1000 workers. However, occasional changes in procedures or product lines have led in the past to layoffs, and many of the idled workers join the international migratory flow. This investigation proposes to reveal their motivations, as well as the socioeconomic and cultural effects of migration, both on the migrants and on the town as a whole. The researcher will follow this study with a comparative analysis of the patterns of migratory behavior among the workers of Zacapú, the region's peasants, and workers from areas previously studied.

To begin Jan. 1985. EDC Dec. 1987. El Colegio de Michoacán.

381. Joseph W. Eaton (School of Public and International Affairs, Univ. of Pittsburgh, Pittsburgh, PA 15260)
The ADIT Card Identification Program: Costs and Benefits

This study examines the technology for producing tamper-resistant identity documents like the ADIT card. Now issued to most border-crossers at the Mexican and Canadian borders, the ADIT card provides immigrants from Mexico with a trustworthy ID card, less expensive than a Mexican passport. Under the proposed Simpson-Mazzoli Immigration Reform and Control Act, similar documents might be issued to all U.S. workers so that in the future employers can check on the work eligibility of any prospective employee. This research addresses the controversial issues raised by this proposal, since it will bring the U.S. close to having a national identity card. The study examines the administrative, political, and privacy implications of the technology and the proposal in relation to the rapid growth of computerized personal data files in government and industry.

Mexican-American Border Program, Austin, Tex. Publications: *You — The Card-Carrying American* (Totowa, N.J.: Littlefield, Adams and Co., forthcoming); "I.D. — Thoughts on a World Standard," *International Security Review,* Sept.-Oct. 1983, pp. 54-58; "Identification Document Security: Issues and Options," in *Proceedings,* Hearings before the Subcommittee on Courts, Committee on the Judiciary, U.S. Senate, Oct. 5, 1983 (Washington, D.C.: U.S. Government Printing Office, 1983).

382. Celestino Fernández (Affirmative Action, 501 Administration Bldg., Univ. of Arizona, Tucson, AZ 85721)
Mexican Naturalization

Although Mexicans represent one of the largest immigrant groups to the U.S., they have one of the lowest rates of naturalization, documented since the 1920s and continuing today. Very few studies have addressed this topic and even fewer (less than three) have attempted to explain it empirically. This study focuses directly on the issue and provides explanations for the low historical and contemporary rates through a series of oral case histories. The sample consists of Mexicans legally in the U.S., some of whom have become citizens, while others, although eligible for naturalization, have not.

Begun Jan. 1984. Ed. Dec. 1984. Project Participar.

383. ‡María Patricia Fernández-Kelly (Center for U.S.-Mexican Studies, D-010, UCSD, La Jolla, CA 92093), Robert Bach (Dept. of Sociology, SUNY-Binghamton, Binghamton, NY 13901), Patricia Pessar (New York Research Program in Inter-American Affairs, Center for Latin American and Caribbean Studies, New York, NY 10003), Helen I. Safa (Center for Latin American Studies, Univ. of Florida, Gainesville, FL 32604), Saskia Sassen-Koob (Dept. of Sociology, Queens College, CUNY, New York, NY 11367)
Hispanic Women in the Garment and Electronics Industries

This study will examine the restructuring of industry in the United States as a response to the internationalization of production and will explore the relationship of these phenomena to the insertion of Hispanic women into the labor force. As examples of this process the researchers have chosen the garment and electronics industries in the New York metropolitan area, greater Miami, and greater Los Angeles. These three locations, which have the fastest-growing Hispanic populations in this country, offer a wide spectrum of alternatives for the development of industry and illustrate variations in the structure of labor markets, ethnic composition, and characteristics of immigrants. Of central significance for this study's focus on women, both industries chosen for the research rely predominantly on women as direct production workers. Despite the now extensive literature on migration in the three areas, no systematic comparative analysis has addressed the incorporation of Hispanic women into these labor markets, nor has any study provided a general explanation of their role in the reorganization of industry. The researchers will analyze secondary source materials, as well as survey and ethnographic information on a sample of firms and their workers.

Begun Aug. 1984. EDC Aug. 1987. Revson Foundation/Ford Foundation/Tinker Foundation/Univ. of Florida/Center for U.S.-Mexican Studies, UCSD. Publications: M.P. Fernández-Kelly, *For We Are Sold, I and My People: Women and Industry in Mexico's Frontier* (Albany, N.Y.: SUNY Press, 1983); J. Nash and M.P. Fernández-Kelly, *Women, Men, and the International Division of Labor* (Albany, N.Y.: SUNY Press, 1983).

384. María Herrera-Sobek (Dept. of Spanish and Portuguese, UCI, Irvine, CA 92717)
"Bonito California": An Historical Overview of the Mexican Immigrant in *Corridos* and *Canciones*

This study traces the history of Mexican immigration to the United States through songs and ballads written and/or sung by Mexican immigrants themselves. It includes chapters on the *vaquero* experience, working on the railroad, the Mexican Revolution, the experience of repatriation, the *bracero* era, César Chávez and the United Farm Workers, the return of the *mojado*, and the 1980s.

Begun winter 1981. EDC 1985. Mexico-Chicano Program, UCI. Publications: "Mexican Immigration and Petroleum: A Folklorist's Perspective," *New Scholar* 9 (1985); "Protesta social e ideología socialista en el corrido," in *XX Congreso Internacional de Literatura Iberoamericana* (Budapest, Hungary: 1984); "Chicano Literary Folklore: An Overview," in *Contemporary Issues in Chicano Studies*, ed. Francisco Lomelí (New York: Univ. of Columbia Press, 1984); "*Mica, Migra,* and *Coyotes:* Contemporary Issues in Mexican Immigrant *Corridos* and *Canciones,*" submitted.

385. ‡Bill O. Hing, ‡Mark Silverman (Immigration Law Clinic, 536 Mission St., Rm. 251, Golden Gate Univ., San Francisco, CA 94105)
Suspension of Deportation and Visa Backlogs for Mexican Nationals

This research explores the hardships posed by particular provisions of U.S. immigration law for Mexican nationals residing in the United States. The study focuses on the extreme hardship requirement for suspension of deportation and on the issue of visa backlogs. The research consists of interviews with Mexican nationals and reviews of secondary literature. Interviews have indicated that the extreme hardship requirement should be changed to "hardship" and that visa backlogs have adversely affected Mexican nationals. The project has produced a practitioner's manual on how to document the extreme hardship requirement, an argument which focuses on documenting social conditions in Mexico, based in part on materials published by the Center for U.S.-Mexican Studies, UCSD.

Begun Apr. 1983. Completed 1984.

386. Richard C. Jones (Dept. of Social and Policy Sciences, UT-San Antonio, San Antonio, TX 78285)
Mobility in the U.S. of Migrants from Three Mexican Regions

This research will compare the occupational and spatial mobility of migrants to the U.S. from three small regions of Mexico: Dolores Hidalgo, Guanajuato; Río Grande, Zacatecas; and Nueva Rosita/Músquiz, Coahuila. These three areas produce significant proportions of the undocumented migrants apprehended in the South Texas region, as revealed in INS records. The researcher hypothesizes that the migrants from the Coahuila border region tend to work in urban areas, make more frequent trips to the U.S., earn more money, move about more freely, and progress up the job ladder more than do migrants from the interior states of Guanajuato and Zacatecas. These differences may be attributed to the fact that migrants from Coahuila show higher proportions of legal status, urban origin, and kinship networks in the areas of destination than do the migrants from the other areas. The researcher will test the hypotheses by analysis of matrices which detail inter-area movements and job changes in the U.S. Data were collected in Guanajuato in December 1981 and January 1982, in Zacatecas during January 1984, and in May 1984 in Coahuila.

Begun Dec. 1981. EDC Dec. 1984. UT-San Antonio/Trull Foundation. Publications: "Mobility Characteristics of Mexican Undocumented Migrants of Texas from Border Interior Mexico," submitted; R. Jones, R. J. Harris, and A. Valdez, "Occupational and Spatial Mobility of Undocumented Migrants from Dolores Hidalgo, Guanajuato," in *Patterns of Undocumented Migration: Mexico and the U.S.*, ed. R. Jones (Totowa, N.J.: Rowman and Allanheld, forthcoming).

387. Michael Kearney (Dept. of Anthropology, UCR, Riverside, CA 92521)
A Case Study of a Migratory Labor Network in Mexico and the United States

Using survey research and ethnographic methods, this study examines changing patterns of migrant labor emanating from a Mixtec community in Oaxaca to the Mexican Northwest and the western United States. The study's basic unit of analysis is the migrant network, but the researcher also gives special attention to socioeconomic differentiation within the network as it penetrates different labor markets and various geographic, social, and cultural "spaces." This research also examines the role of the migrant network in articulating the subsistence economy in Oaxaca with the network's encompassing social formations.

Begun June 1983. EDC Dec. 1985. UC MEXUS.

388. ‡Gene E. Levine (Dept. of Sociology, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024), Fernando Parra (Dept. of Sociology, CSU-Fullerton, Fullerton, CA 92631)
The Impact of the Returned Emigrant upon Mexican Society

This project explores the role of returned emigrants in the process of community-level social and economic development in Mexico. The study examines the functional and dysfunctional consequences of their renewed, everyday participation in local society, particularly the extent to which they serve as agents of modernization. The first phase of the inquiry (1984) focuses upon families from Chihuahua in Los Angeles and upon returned emigrants in Chihuahua.

Begun May 1984. EDC Apr. 1985. UCLA.

389. Gustavo López Castro (Centro de Estudios Rurales, El Colegio de Michoacán, Madero Sur 312, Zamora, Mich. 59600)
Migration from Michoacán to the United States: The Case of a Rural Community

Surveys, interviews, and participant observation provide data for this study of the following four periods of heavy out-migration from a rural community in Michoacán to the U.S.: 1918, when bandits and the Mexican Revolution created a climate of insecurity; the period between the end of World War I and 1929, when the boom in the U.S. economy stimulated migration; the post-World War II period of deterioration in peasants' living conditions brought about by Mexico's model of stable development and the Bracero Program; and the present period, when existing social networks have allowed *michoacanos* to reduce the costs of emigration. The study also considers the social costs of this emigration, especially the appearance of *cholismo* among the town's youth.

Begun Jan. 1983. Completed 1984. CONACYT/AMEP.

390. ‡Douglas S. Massey (Population Studies Center, Univ. of Pennsylvania, 3718 Locust Walk, Philadelphia, PA 19104), Jorge Durand Arp-Nisen (Centro de Estudios de Antropología Social, El Colegio de Michoacán, Av. Morelos Sur 122, Zamora, Mich. 59600)
Mexico-U.S. Migration: The Settlement Process

This study compares out-migration from four Mexican communities in the states of Jalisco and Michoacán: a traditional rural community, a commercialized farm town, an industrial town, and an urban barrio. Surveys of representative random samples conducted in each town and a follow-up survey of out-migrants in California cities done six months later provide data on more than 6,000 people in 885 households. The project employed a mix of quantitative and qualitative methods in a comprehensive study of the social process of Mexico-U.S. migration. Specific topics of analysis include: the historical origins and development of out-migration to the United States; contemporary patterns of U.S.-bound migration; household-level socioeconomic strategies for pursuing migration; the social and economic impact on communities of international migration; and the process of settlement and integration in the United States. Ancillary studies focus on the occupational mobility of Mexican migrants to the Unites States, the process of attaining immigrant status, the role of women in the migration process, and the interplay between migration and education.

Begun Aug. 1981. Completed 1984. NICHD. Publication: "The Settlement Process among Mexican Migrants to the United States: New

Methods and Findings," in *Report of the Panel on Immigration Statistics* (U.S. National Academy of Sciences).

391. ‡Richard A. Mines (2131 University Ave., Rm. 306, Berkeley, CA 94703), Philip A. Martin (Dept. of Agricultural Economics, UCD, Davis, CA 95616)
Mexican Migrants and California Agriculture

This project attempts to explain the role of immigrants in California farm labor markets. Based on a 1983 survey of 1300 farmworkers, the study presents an analysis of the changing supply of farm labor in California. In order to estimate labor demand, the researchers have conducted a survey of farm advisers of the UC Agricultural Extension Service. Future plans include an investigation using case study techniques of how demand and supply meet in the marketplace. The research has shown thus far that the amnesty provisions of the Simpson-Mazzoli bill will not deprive farmers of manpower, that options for enforcing the bill's coercive provisions must be carefully planned in order to be effective, and that technological change should be designed to lengthen farmworkers' careers.

Begun Oct. 1982. Ongoing. Rosenberg Foundation/Kellog Foundation/Giannini Foundation. Publications: "Immigration and the California Citrus Industry," *Industrial Relations*, 1984; *California's Farmworkers; Results of the UC-EDD Survey of 1983*, submitted.

392. ‡Erin P. Moore (Dept. of Anthropology, UCB, Berkeley, CA 94709), ‡Martin West (Dept. of Anthropology, Univ. of Cape Town, Cape Town, Republic of South Africa)
Immigration Control and Enforcement:
The United States and South Africa

U.S. immigration law and enforcement, as they pertain to undocumented farmworkers in Washington state, have many similarities to the South African influx control law and its enforcement. This comparative study will examine the history of the laws, the procedures which a worker must follow to obtain documentation, the enforcement of the laws in theory and in practice, judicial processes and migrants' rights in exclusion procedures, and reform movements. The study is based on legal and ethnographic research.

Begun Aug. 1984. EDC Dec. 1984.

393. Rick A. Morales (Dept. of Sociology, UCB, Berkeley, CA 94720)
Mexican-origin Workers in the
San Diego County Restaurant Industry

This research attempts to explain the various factors which affect variation among Mexican-origin workers in the local restaurant industry. Acknowledging the critical importance of specific job categories in an industry characterized by varying firm types, sizes, and ownership patterns, the researcher is basing the analysis upon interviews currently being conducted with restaurant employers and workers and upon participant observation as a restaurant worker.

Begun Mar. 1982. Ongoing. Tinker Foundation/Center for U.S.-Mexican Studies, UCSD.

394. Georgina Núñez Reyes (Cooperación Fronteriza y Trabajadores Migratorios, Dirección General para América del Norte, Secretaría de Relaciones Exteriores, México, D.F. 09995)
The Simpson-Mazzoli Bill:
The Position of U.S. Legislators

This analysis of the positions taken by various members of the U.S. House of Representatives during the discussions of the Simpson-Mazzoli bill relates these postures to the economic, political, and social conditions prevailing in the southwestern United States at the time of the debates. It hypothesizes that changes in U.S. migration policy result from two interconnected variables: how forcefully interest groups concerned with the migration of Mexican workers to the U.S. make their positions known in various government agencies; and the degree to which governmental agencies negotiate about the migration issue.

Begun July 1984. EDC indefinite.

395. ‡James B. Pick (Graduate School of Management, UCR, Riverside, CA 92521), Edgar W. Butler (Dept. of Sociology, UCR, Riverside, CA 92521)
Geographic Mapping and Socioeconomic Determinants
of International Migration: Imperial County, 1980

This study of maps involves analysis of socioeconomic variables, based on 1980 census data, for the enumeration districts of Imperial County, California. The researchers will produce a map of each variable for the valley portion and five selected cities of the county. The variables include Spanish origin, dependency ratio, immigration, international immigration, income, employment outside California, and bilingual status. Another part of the study analyzes the effect on international immigration and employment outside California of selected variables from the group above.

Begun Jan. 1984. EDC Sept. 1985.

396. ‡Chad Richardson (Dept. of Behavioral Sciences, LA 338, Pan American Univ., Edinburg, TX 78539), Joe Feagin (Dept. of Sociology, UT-Austin, Austin, TX 78712)
Systemic and Institutionalized Abuses
of Undocumented Immigrants

This study analyzes the immigration bureaucracy (both the enforcement and legalization components) and the various forms of institutionalized "discrimination" against undocumented immigrants. The subjects of study include both undocumented Mexican workers and Central American refugees, as well as the major public agencies and immigration network institutions: the INS, the U.S. Consular Service, police agencies, immigration attorneys, detention centers, and *notarios* (immigration consultants). The researchers hypothesize that the powerlessness of undocumented immigrants permits and facilitates exploitation and abuse by many of the agencies, organizations, or individuals with whom they interact. Frequently, such abuse or discrimination is not personal but results from the operation of a system with institutionalized procedures operating to the migrants' disadvantage. Such discrimination serves to maintain their powerlessness and to further the political or economic aims of the agencies or individuals that discriminate against them.

Begun Jan. 1981. Ongoing. University Faculty Research Funds.

397. F. Arturo Rosales (Dept. of History, Arizona State Univ., Tempe, AZ 85287)
Criminality among Mexican Immigrants in the United States, 1910-1940

This study assesses how the Mexican immigrant community and the Mexican government reacted to cases of generally perceived injustices suffered by Mexican immigrants at the hands of the judicial system in the United States during the early part of this century. The research has uncovered a large number of representative examples and suggests that Mexican foreign service officials spent an inordinate amount of time dealing with this issue through diplomatic channels, only to be frustrated time and time again. Politically, however, this official concern legitimized and strengthened support for the Mexican government at home and among its first large-scale wave of immigrants abroad. This was especially crucial for the fledging revolutionary governments in the period following adoption of the country's new constitution in 1917. Another crucial feature of the study analyzes how this phenomenon mobilized the Mexican immigrant community to political activity. Data sources include U.S. and Mexican newspapers and government archives, Mexican organization records, and interviews.

Begun 1981. EDC 1985.

398. Ina A. Rosenthal-Urey (Wheaton College, Norton, MA 02766)
Marriage Networks among Mexican Migrants

Through computer analysis of marriage records from Delhi Parish in Santa Ana, California for the period 1947-1979, the researcher has determined that, since the end of the bracero period, Mexican-born individuals from Jalisco and Michoacán have shown a marked tendency to choose spouses born in their home regions or communities. The data have also permitted the identification of core regions in these states which produce large numbers of migrants to Santa Ana.

Begun Sept. 1983. Completed 1984. Wheaton College/Center for U.S.-Mexican Studies, UCSD. Publication: "Church Records as a Source of Data on Mexican Migrant Networks: A Methodological Note," submitted.

399. Ina A. Rosenthal-Urey (Wheaton College, Norton, MA 02766)
Mexican Migration to the U.S.: A Literature Review

This review of research on Mexican migration to the U.S. includes community-, regional-, and national-level studies in Mexico, research on the impacts of migration in the U.S., an examination of theories and methodologies, and an agenda for future research.

Begun Oct. 1983. Completed 1984. Mellon Foundation/Center for U.S.-Mexican Studies, UCSD. Publication: "What Do We Know about Mexican Migration? A Research Review," submitted.

400. Ina A. Rosenthal-Urey (Wheaton College, Norton, MA 02766)
Family Migration from Mexico to Santa Ana, California

This field research centers on Mexican families that, although undocumented, have immigrated permanently to Santa Ana, California since the end of the bracero period. The study will attempt to determine the role of such families in the formation of migrant networks, to demonstrate the effect on family organization of participation in the U.S. labor market, and to document the persistence and change over generations of Mexican cultural patterns, family roles, and the familial authority structure within such migrant families in an urban context.

To begin Oct. 1985. EDC June 1986.

401. Roger C. Rouse (Dept. of Anthropology, Stanford Univ., Stanford, CA 94305)
Mexican Migration to the United States:
Kinship and Family Relations in the Development
of a Migrant Circuit

How do Mexicans involved in migration to and from the United States organize and interpret their experiences? This dissertation research will attempt to address this general question through a detailed historical and ethnographic case study, a case of migration since the 1940s between a small town in southern Michoacán and a city in the San Francisco Bay area of northern California. Data for the study are drawn from participant observation, oral histories, and archival research.

Begun Oct. 1982. EDC June 1986. IAF/Stanford Univ.

402. Martin H. Sable (School of Library and Information Science, UW-Milwaukee, 4518 N. Larkin St., Milwaukee, WI 53211)
Mexican and Mexican-American Agricultural Labor
in the U.S.: A Research Guide

This wide-ranging bibliography is chronologically arranged under 6 subdivisions: Agricultural Labor (General); Migrant Agricultural Labor; Immigration of Mexican Agricultural Labor; Mexican-American Agricultural Labor; Mexican and Mexican-American Agricultural Labor Unions; and Strikes of Mexican and Mexican-American Agricultural Labor Unions. The dates of the listed works range from 1870 to 1984, and of the 2,500-3,000 anticipated entries, fewer than 100 were written in Spanish, a few in French, and one in Norwegian, with the balance authored in English. Included are reference tools (bibliographies, yearbooks), research reports, manuscript materials, masters' theses and doctoral dissertations, pamphlets, conference papers and proceedings, monographs, chapters of books, and articles from scholarly journals. The bibliography also lists government documents, both Mexican and U.S. (the U.S. documents from federal, state, and local levels), articles from popular magazines and newspapers (ranging from the *Los Angeles Times* to alternative-press publications), and the publications of associations and social-service organizations. Following an author index, the work will include two appendices, one listing a variety of audiovisual materials and another containing a directory of relevant organizations.

Begun Dec. 1983. EDC Jan. 1985. Center for Latin America, UW-Milwaukee.

International Policy and Political Relations

403. ‡Sergio Q. Aguayo, Noel Thomas (Dpto. de Relaciones Internacionales, CEESTEM, Magnolia 39, San Jerónimo Lídice, México, D.F. 01020)
The Role of U.S. Churches in the Central American Conflict

This project seeks to identify the stand taken by Central American churches with regard to the conflict in their countries and to analyze how their positions have affected churches in the U.S. The study hypothesizes that the churches generally favor the revolutionaries and that U.S. churches are becoming important social and political actors as they adopt positions critical of North American policy. The researchers are reviewing church documents in addition to other sources of information.

Begun Jan. 1984. EDC Jan. 1986. Publication: "Las posiciones de las iglesias en Estados Unidos ante el conflicto de Centroamérica," *Informe Relaciones México-Estados Unidos* 6 (Aug.-Dec. 1984).

404. ‡Adolfo Aguilar Zinser, ‡Carlos Federico Paredes, Julián Adame, Verónica Marina Cortez (IECA, CIDE, A.P. 10-883, Carretera México-Toluca, Km. 16.5, México, D.F. 01130)
The Economic and Political Dimensions of the Central American Conflict

This project will define and analyze the primary characteristics of the political and economic crisis in Central America; differentiate between the relative importance of regional, national, and international factors currently affecting it; and consider the roles played by various social, political, and economic actors in the region's transformation. Within its economic focus, this research will address both the local and regional aspects of the crisis and the powerlessness of traditional models of accumulation to revitalize a pattern of growth and development. The researchers will adopt a historical perspective when evaluating the viability of new models of development in the current context of crisis between reformism and revolution. With regard to the political dimension, the study will categorize the structural ingredients of the current struggles for regional and national power, and it will identify the actors in these struggles, as well as their goals and demands. The study will also address the influence of U.S. policy toward Central America, the Contadora Group, and the various political parties involved.

Begun Oct. 1984. EDC Sept. 1985. CIDE/Ford Foundation. Publication: "El debate en el congreso norteamericano sobre Centroamérica y su interrelación con el debate en América Latina," Cuadernos Semestrales, no. 15 (México, D.F.: IEEU-CIDE, 1984).

405. Genaro Salvador Carnero Roque (Programa de Investigación, ENEP, UNAM-Acatlán, Av. Alcanfores y San Juan Totoltepec, Naucalpan, México 53140)

Strategic Oceanic Resources and U.S.-Mexican Relations

This study examines the evolution and the principal unresolved problems of marine relations between Mexico and the U.S. The analysis reveals both the dynamic of U.S. foreign policy and the manner in which this policy may hinder future negotiations on the exploitation and conservation of hydrocarbon resources in the Sigsbee Deep, near the convergence of the two nations' territorial waters in the Gulf of Mexico. It also speaks to the role of North American transnational interests in the exploitation of polymetallic nodules in the fissure formed by the Clarion and Clipperton Islands within Mexico's Pacific territorial waters.

Begun Apr. 1984. EDC Mar. 1985. ENEP, UNAM-Acatlán. Publications: "Tercera Conferencia sobre Derecho del Mar," *Le Monde Diplomatique* (Spanish edition) 6:61 (Jan. 1984); "México y Estados Unidos ante la Tercera Confemar: resultados e implicaciones," *Informe* 1:3 (Jul.-Dec. 1983):215-226.

406. Wayne A. Cornelius (Center for U.S.-Mexican Studies, D-010, UCSD, La Jolla, CA 92093)

Mexico and the United States in the 1980s

This comprehensive, analytic study of U.S.-Mexican economic and political relations in the 1980s focuses on domestic problems and policy choices in each country which have generated conflict in bilateral relations. The study seeks to document and explain the recent shift in U.S.

public attitudes and official responses to developments in Mexico, from a general posture of "benign neglect" to one of "unilateral protectionism" coupled with a renewed interventionist impulse. Chapters deal with "Mexico as a Perceived Threat to the United States," "The Immigration Question," "Implications of Mexico's Economic Crisis and Its Aftermath," "The Question of Mexico's Political Stability," and "Mexico's Quest for an Independent Foreign Policy."

Begun Oct. 1984. EDC Sept. 1986. Publication: "Mexico and the United States in the 1980s," in *Proceedings of the Symposium on Orozco and the Mexican Revolution* (Hanover, N.H.: J. S. Dickey Endowment, Dartmouth College, forthcoming).

407. Richard B. Craig (Dept. of Political Science, Kent State Univ., Kent, OH 44242)
Domestic and International Implications of Mexican Narcotics Traffic

In broad terms, this project sought to determine the role of an illegal activity in the domestic policymaking process of a developing nation and its impact on that country's relations with a more developed neighboring state. More specifically, this research traced the historical evolution of illicit Mexican drug traffic; determined its social, economic, and political impact in Mexico; assessed its effect on narcotics policymaking in the United States; and analyzed its role in contemporary U.S.-Mexican relations. The study proceeds from the hypothesis that illegal Mexican drugs have fundamentally affected both Mexican and American politics at the local, regional, national, and international levels. An historically-based analysis of policymaking provided the primary methodology for this study. Data sources included the print media, government documents, and interviews.

Begun Jan. 1982. Completed 1984. Mexico-U.S. Border Research Program, UT-Austin.

408. ‡Gustavo del Castillo (CEFNOMEX, Abelardo Rodríguez 21, Zona del Río, Tijuana, B.C.N. 22320), Carlos Rico (CIDE, A.P. 10-883, Carretera México-Toluca, Km. 16.5, México, D.F. 01130), Gustavo Vega (CEI, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
Limits of Linkage Formation in U.S.-Mexican Relations

This project reviews the growing number of issue areas in which policy links have developed between decision-makers in Mexico and the U.S. The study will attempt to show the real limits of linkage formation between these two countries and to demonstrate the policy implications of these links for their bilateral relations. The working hypothesis of the research is that when Mexican dependency on the U.S. declines, each country will tend to develop structures aimed at linking with parallel policymaking agencies in the other, resulting in a decline in the asymmetry of the relationship. The development and decline of such structures serve as indicators of Mexico's decreasing and increasing dependency on the U.S., respectively.

Begun June 1984. EDC indefinite. CEFNOMEX.

409. ‡Guy F. Erb (GFE Ltd., 1835 K St. NW, Suite 700, Washington, DC 20006), ‡Cathryn L. Thorup (U.S.-Mexico Project, ODC, 1717 Massachusetts Ave. NW, Washington, DC 20036)
U.S.-Mexican Relations: The Issues Ahead

This research project forms part of the Overseas Development Council's U.S.-Mexico Project, a multi-year effort involving policy research and outreach on the bilateral relationship. This portion of the project focuses on trends over the next five to ten years in three areas: trade and capital investment, security issues, and the "social border." Based on a series of binational consultations with individuals from the public, private, and academic sectors, the authors discuss the options facing policymakers in the U.S. and Mexico.

Begun Oct. 1983. Ongoing. ODC. Publication: "U.S.-Mexican Relations: The Issues Ahead," ODC Development Paper (Washington, D.C.: ODC, Sept. 1984).

410. Elizabeth G. Ferris (Dept. of Government and Law, Lafayette College, Easton, PA 18042)
Mexico and the Central American Refugees:
Foreign and Domestic Political Concerns

This study examines Mexico's policies toward Central American refugees in terms of Mexico's foreign policy concerns and its domestic political, economic, and social considerations. It explores the determinants of Mexican policies toward different groups of Central Americans — Guatemalans along the border, Salvadorans in urban areas, and Central Americans of various nationalities migrating for essentially economic reasons, some to the U.S. The research is theoretically grounded in dependency theory, decision-making analysis, and the growing literature on transnational population flows. Data come primarily from interviews with officials in Mexico, both governmental and non-governmental, and from secondary sources published in Mexico, Central America, and the U.S.

Begun Apr. 1982. Ongoing. Fulbright Foundation/Heinz Endowment. Publication: "The Politics of Asylum: Mexico and the Central American Refugees," *Journal of Inter-American Studies and World Affairs*, Aug. 1984.

411. David R. Mares (Dept. of Political Science, Q-060, UCSD, La Jolla, CA 92093)
Mexico and U.S.-Nicaraguan Relations in the 20th Century

Mexico has come to the defense of anti-U.S. forces in Nicaragua three times during the current century: in the period 1907-1912, from 1924 to 1934, and again in 1979. The events which took place during these periods threatened Nicaraguan stability, U.S.-Nicaraguan relations and, as determined by this study, Mexican interests. The U.S. consistently sought to have Mexico play a role favorable to U.S. policy in the region, but Mexican leaders in all three cases — dictator Porfirio Díaz, strongman Plutarco Elías Calles, and President José López Portillo — saw Mexico's interests at odds with U.S. policy. The purpose of this comparative study was to discover the rationale for Mexico's historic position, explain its consistency over time despite strenuous U.S. opposition, and evaluate its impact on U.S.-Mexican relations.

Begun July 1982. Completed 1984. Academic Senate, Committee on Research, UCSD/El Colegio de México.

412. ‡Yolanda Mercader Martínez, Pablo Valentino Ramírez (Biblioteca Nacional de Antropología e Historia, INAH, Paseo de la Reforma y Calz. Gandhi, México, D.F. 11560)
The Archives of "U.S.-Mexican Relations, 1739-1862"

Documents from these archives cover topics such as U.S. expansion in Spanish territory between 1785 and 1819; concessions to Texan settlers after 1822; fluctuating borders; the War of 1846; and problems in Indian territory from 1825 to 1842. This project summarizes each document in the collection, both published and unpublished, and provides entire texts of selected documents.

Begun Jan. 1982. Completed 1984. Publication: Y. Mercader Martínez, "Testimonios de las relaciones México-Norteamericanas desde fines del siglo XVIII a la primera mitad del siglo XIX," Serie Manuscritos, no. 9 (México, D.F.: INAH, 1984).

413. Lorenzo Meyer (CEI, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
The Mexican Revolution, Great Britain, and the United States

This study of international relations among Mexico, Great Britain, and the United States from 1900 to 1950 attempts to discern how the Mexican Revolution affected the economic interests of Great Britain — the major European investor in Mexico in 1910 — and how the United States protected or failed to protect these interests.

Begun Mar. 1976. EDC Dec. 1985. Woodrow Wilson Center/Center for U.S.-Mexican Studies, UCSD. Publications: *Historia de la Revolución Mexicana. Período 1928-1935: los inicios de la institucionalización*

(México, D.F.: El Colegio de México, 1977); *Historia de la Revolución Mexicana. Período 1928-1935: los conflictos sociales del Maximato* (México, D.F.: El Colegio de México, 1977); L. Meyer and J. Vázquez, *México frente a Estados Unidos (1776-1980)* (México, D.F.: El Colegio de México, 1982).

414. Eberhardt V. Niemeyer, Jr. (Office for Mexican Studies, UT-Austin, Austin, TX 78712)
William F. Buckley and the Mexican Revolution, 1908-1923

Based on the Buckley papers in the Benson Latin American Collection of the University of Texas at Austin, this work will analyze William F. Buckley's view of the Mexican Revolution. A staunch conservative, Buckley was appalled at the breakdown in law and order that followed the end of the *porfiriato* and did not sympathize at all with the revolutionaries or their aims and objectives. Not only did he deplore what he saw happening in Mexico, he tried to influence the U.S. government to take steps to exert its power to restore the pre-1910 status quo. His views led him into conflict not only with Mexican authorities, but with American governmental officials as well. Because of his strong convictions, Buckley's reaction to the events of the times provide the material for an interesting study.

Begun Dec. 1983. EDC Dec. 1984.

415. Mario Ojeda (CEI, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
Mexico: The Rise of a Dynamic Foreign Policy

During the last ten years, Mexico has advanced from a passive, defensive, and jurisdictional foreign policy to an active and politically forceful one. This research seeks, through an analysis of documentary and interview information, to uncover the causes for changes in policy and to describe the achievements of the new policy outlook.

Begun May 1984. EDC Dec. 1984. Publication: *La política de México hacia Centroamérica, 1979-1982* (México, D.F.: El Colegio de México, 1983).

416. Susan Kaufman Purcell (Council on Foreign Relations, 58 East 68th St., New York, NY 10021)
Latin American Project

The Latin American Project consists of a number of study groups that focus on important and difficult issues involving U.S. relations with Latin America and the Caribbean. Several of the groups deal with Mexico — those on immigration and refugee issues, Central America, and U.S. relations with the ADCs of Latin America. A fourth group, planned for 1984-85, will focus on the management of U.S. relations with Mexico and Canada. Papers are commissioned for all sessions of each study group's series of meetings, and most of the study groups will produce a policy-oriented published monograph.

Begun 1982. EDC 1985. Tinker Foundation/Ford Foundation/Mellon Foundation / Xerox / Grace / IBM / World Trade-Americas / Chase / General Electric.

417. ‡Clark W. Reynolds, Clint E. Smith (Food Research Institute, Stanford Univ., Stanford, CA 94305)
Project on United States-Mexico Relations

In 1979 the Project on United States-Mexico Relations became the first completely binational effort addressing the growing complexity and potential for conflict between these neighboring countries. Involvement in the undertaking includes academia, government, labor, business, and the informed public. It accommodates a wide range of political and economic perspectives and includes participants from third countries to give the program an international perspective. Participants examine economic and social dynamics and their implications for trends in relations between the United States and Mexico. The program maintains a broad, interdisciplinary focus and historical perspective, concentrating on medium- and long-range policy issues. The process is evolutionary. New research and conference topics build on the findings of previous activities, accommodating new issues and approaches as they develop.

Begun 1979. Ongoing. Ford Foundation/Hewlett Foundation/Mellon Foundation/Rockefeller Foundation/ARCO Ventures. Publications: C. Reynolds and C. Tello, eds., *United States-Mexico Relations: Social and Economic Aspects* (Stanford, Calif.: Stanford Univ. Press, 1983); R. Fagen and O. Pellicer de Brody, eds., *The Future of Central America: Policy Choices for the U.S. and Mexico* (Stanford, Calif.: Stanford Univ. Press, 1983); B. Johnston, C. Luiselli F., C. Cartas, and R. Norton, eds., *U.S.-Mexico Relations: Agricultural and Rural Development* (Stanford, Calif.: Stanford Univ. Press, forthcoming).

418. Richard N. Sinkin (Dept. of History, UT-Austin, Austin, TX 78712)
The United States and Mexico:
Roots of a Relationship

This book-length study will analyze the historical roots of six areas of intractable disputes between Mexico and the United States: the border — its meaning and definition within the bilateral framework, its legal structure, and the role it plays in creating difficulties for the two countries; migration — the history of migratory flows, legal questions, and economic pressures; energy — the history of the Mexican oil industry and its relationship to the U.S., differences between U.S. and Mexican perceptions about Mexican oil, and future prospects for resolution of these differences; trade — the type and volume of trade over time and current difficulties in formulating trade policy, with a focus on its dimension of "informal diplomacy"; investment — the historical roots of Mexican efforts to control foreign investment, types and size of U.S.

investment in Mexico, and recent capital flight from Mexico to the U.S.; and foreign policy — the differences between U.S. and Mexican perspectives on current alterations in the international community.

Begun June 1982. EDC Dec. 1984.

419. Cathryn L. Thorup (U.S.-Mexico Project, ODC, 1717 Massachusetts Ave. NW, Washington, DC 20036)
Mexico's Role in Central America: Implications for U.S.-Mexican Relations

Part of the Overseas Development Council's U.S.-Mexico Project, this study challenges the conventional view that Mexican foreign policy merely reacts to U.S. policies, seeking to show that the margin of maneuver enjoyed by Mexico is now a more significant aspect of Mexico's policy. Covering the period 1976-1984, research will center on the development of Mexico's foreign policy toward Central America and its implications for U.S.-Mexican relations. Research will be carried out in both the United States and Mexico and will be based primarily on government documents and in-depth interviews with policymakers from both the public and private sectors.

Begun May 1984. EDC June 1986. Harvard/Tinker Foundation/ODC.

420. Gustavo F. Vega (CEI, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
Policy Issues in U.S.-Mexican Relations

This study will examine the development of the complex, asymmetric relationship between the U.S. and Mexico during the 1970s and early 1980s. After a broad historical review of U.S. relations with Mexico from 1942 through the end of the 1960s, the researcher will analyze at length the most salient policy issues in the areas of diplomatic relations, military affairs, and economic interactions. His central concern in the study of these substantive issues is with the way in which the U.S. has conducted its diplomatic, military, and economic policies toward Mexico in a changing environment, and the extent to which the United States has succeeded (or failed) at maintaining a viable relationship with Mexico.

Begun Apr. 1984. EDC indefinite.

421. ‡Richard A. White, Andrea Martínez (Dpto. de Relaciones Internacionales, CEESTEM, Magnolia 39, San Jerónimo Lídice, México, D.F. 01020)
The Evolution of the Central American Conflict

This analysis of developments in the Central American conflict departs from the hypotheses that the U.S. presence there heightens the conflict and that U.S. national security policy with regard to Central America is founded on erroneous perceptions regarding political processes in the region. After reviewing information from U.S. newspapers, journals, and official sources, the researchers hope to propose alternative approaches.

Begun Jan. 1984. EDC indefinite. Publications: "El plan nacional de contrainsurgencia para El Salvador"; "La guerra secreta contra Nicaragua"; "América fortificada," *Informe Relaciones México-Estados Unidos* 1:5 (May-Aug. 1984).

Other Studies in International Relations

422. Dennis J. Bixler-Márquez (College of Education, UTEP, El Paso, TX 79968)

A Sociolinguistic Case Study of Colonia Juárez, Chihuahua

This study aims to identify the level and type of societal bilingualism in a Spanish- and English-speaking community of members of the Latter Day Saints Church in northern Mexico. The research will pay special attention to the language use and loyalty patterns of educators and parents in selected institutional settings. The results should enable policy formulators in the community to select a language education program in accordance with school and community desires, needs, and capabilities.

Begun June 1982. Ongoing. NIE/American Psychological Association/UTEP.

423. John A. Britton (Dept. of History, Francis Marion College, Florence, SC 29501)

Expatriates, Travelers, and Revolution in Mexico, 1920-1940

This project involves the analysis of writings on Mexico authored by American intellectuals between 1920 and 1940. The researcher hopes to determine their attitudes toward revolution, imperialism, land reform, labor organization, and social change in one of the first nations in the Third World to undergo what many observers felt was a social revolution. The researcher will draw data from government and private archives in order to assess the influence of the Mexican government and organizations such as the Communist Party on these authors, thereby testing some of the generalizations made in Paul Hollander's *Political Pilgrims*. These data will also permit an evaluation of the previously neglected historical origins of many liberal and leftist attitudes in the U.S. toward revolution in the Third World.

Begun June 1978. Ongoing. Southern Regional Education Board/Mellon Foundation/NEH. Publication: "In Defense of Revolution: American Journalists in Mexico, 1920-1929," *Journalism History* 5 (winter 1978-79):124-130, 136.

424. Marie-Claire Fischer de Figueroa (CEI, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
United States-Mexican Relations:
An Annual Bibliography

Established in October 1979, the Information Center on the United States of El Colegio de México compiles an annual bibliography dealing with U.S.-Mexican relations. Titled *Relaciones México-Estados Unidos: bibliografía anual,* this bibliography contains reference to monographs, journals, newspaper clippings (Mexican and U.S.), and miscellanea (working papers, U.S. Congressional hearings and reports, theses, symposia, etc.) published during the previous year. The main sections are as follows: General Relations; Political Relations; Economic Relations; Energy Relations; Border Relations; Illegal Aliens; Mexican-Americans; Cultural Relations; U.S. Perspectives on Mexico and Works Published in the U.S. about Mexico; and Studies of Mexican-U.S. Relations.

Begun 1980. Ongoing. Publication: *Relaciones México-Estados Unidos. Bibliografía anual,* vols. 1-3 (México, D.F.: El Colegio de México, 1982, 1983, and forthcoming).

425. ‡Oscar R. Martí (CSRC, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024), Robert Maniquis (Dept. of English, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024)
The Impact of the French Revolution
in Mexico and Latin America

In cooperation with universities in Europe (Bourdeaux, Paris) and Latin America (UNAM), the collaborators on this project will attempt to organize a series of international conferences on the influence of the French Revolution in Mexico and the rest of Latin America. Other aims of the project include the preparation of a volume of bibliographic and historiographic works; the creation of a traveling exhibit; the organization and staffing of several courses; and the establishment of a university exchange program. The project is sponsored and coordinated by the UCLA Program for the Bicentennial of the French Revolution.

Begun Apr. 1984. Ongoing. UC MEXUS/CSRC/College of Arts and Letters, UCLA.

426. Charles A. Reilly (Center for U.S.-Mexican Studies, D-010, UCSD, La Jolla, CA 92093)
The Arizona Farmworkers' Union
and Mexican Rural Development

This study documents efforts by the Arizona Farmworkers' Union to organize and finance a series of rural development projects in the home communities of Mexican farmworkers who are employed seasonally by citrus growers in Arizona. The projects, begun in 1981, include irrigation and other rural infrastructure projects as well as social services for rural dwellers. Contractual agreements between the union and Arizona growers require that employers make regular contributions (based on hours of work performed by union members) to a development fund which benefits the migrant workers' communities of origin in Mexico. The study draws data on the history and results of the program to date from on-site observations and interviews conducted in southern Arizona, Querétaro, Guanajuato, and other Mexican states.

Begun Dec. 1982. Ongoing. Publication: C. Reilly and E. Meehan, "Local-Level Development in Rural Latin America," in *Progress in Rural Extension and Community Development*, eds. G. E. Jones and M. J. Rolls (London: John Wiley and Sons, Ltd., 1982).

427. Susan L. Zurcher (Dept. of Social Work, UT-Austin, Austin, TX 78712)
Social Workers and the Undocumented as a Client Population

This dissertation explores the attitudes of a sample of social workers in San Antonio and Austin, Texas towards the undocumented as a client population. After selecting agencies that provide services which might logically be of use to that population, the researcher examined key variables such as ethnicity and agency-level and professional associations.

Begun spring 1984. EDC Dec. 1984. UT-Austin.

III

BORDER STUDIES

428. ‡María Luisa Acevedo Conde, ‡Margarita Nolasco Armas (CECODES, Altadena 8, Col. Nápoles, México, D.F. 03810)
National Borders

This research focuses on urban areas, working conditions, intra- and inter-elite relations, migration, and economic and ideological osmosis on both sides of the U.S.-Mexican border. The study will explore the following questions: What are the causes and effects of transborder migration? How is national identity maintained in the borderlands? How do living conditions and patterns of social organization respond to changes in the region's productive structure, to political upheaval, and to the infiltration of an external ideology? In brief, what are the socioeconomic conditions of the border? Data sources include newspapers, archives, and official documents, as well as surveys and fieldwork.

Ongoing. CECODES.

429. Ricardo Aguilar Melantzón (Dept. of Modern Languages, UTEP, El Paso, TX 79968)
Beyond *Batopilas*

This project involves the writing of a novel about the El Paso-Ciudad Juárez border.

Begun Sept. 1979. EDC indefinite.

430. ‡Adolfo J. Alvarez, ‡Harmon M. Hosch, ‡G. William Lucker (Dept. of Psychology, UTEP, El Paso, TX 79968)
Personality Characteristics of Productive and Nonproductive Workers in the *Maquiladoras* of Ciudad Juárez and El Paso

The collaborators are conducting research in two *maquiladoras* in Ciudad Juárez, Chihuahua and in one assembly plant in El Paso, Texas. The study will attempt to identify personality characteristics that are related to job satisfaction and job productivity in highly repetitive, assembly-line types of work. The results will be used to develop personnel selection instruments for each plant. At one *maquiladora*, using criteria supplied by the company to classify productive and nonproductive workers, the researchers correctly classified over 85% of the work sample using one discriminant function derived from workers' personality attributes.

Begun Oct. 1982. Ongoing.

431. Joan B. Anderson (School of Business Administration, USD, San Diego, CA 92110)
Size, Efficiency, and Profitability:
Electronics Assembly in Baja California

This study has employed individual plant data from a census of electronics *maquiladoras* in Baja California to produce a simultaneous equation model which examines the effects of size of firm, percentage of foreign ownership, and proportion of female workers on the efficiency and profitability of the firm. Using a three-stage, least-squares regression analysis, the model showed a significant negative relationship between efficiency and profitability, but it revealed no statistical relationship between the proportion of female workers and efficiency.

Begun Sept. 1982. Ongoing. USD. Publications: "Efficiency and Profitability," in *Proceedings of the North American Economics and Finance Association*, Dec. 1982; "Size, Efficiency, and Profitability: Mexican Electronic Assembly Plants," submitted.

432. ‡Joan B. Anderson (School of Business Administration, USD, San Diego, CA 92110), Roger Frantz (Dept. of Economics, SDSU, San Diego, CA 92182)
Personal and Organizational Characteristics
Affecting Work Performance:
Direct Evidence from the U.S. and Mexico

This project has surveyed approximately 1000 workers to determine how their attitudes and organizational culture affect work performance, and how U.S. workers differ from Mexicans. The data collected are currently being processed and analyzed using regression and discriminant analysis.

Begun Jan. 1983. EDC summer 1985.

433. ‡Joan B. Anderson (School of Business Administration, USD, San Diego, CA 92110), ‡Roger Frantz (Dept. of Economics, SDSU, San Diego, CA 92182)
Labor Productivity in Baja California's
Apparel *Maquiladoras*

The study attempts to measure the effects of factors such as management attitudes, type of ownership, physical plant conditions, etc., on the X-efficiency of operation of apparel assembly plants in Baja California. The researchers utilized survey questionnaires administered to plant managers to collect the data, which they analyzed using linear programming and multiple-regression techniques.

Begun Feb. 1982. Completed 1984. Publications: "Efficiency in Mexican Apparel Assembly Firms," in *Proceedings of the Rocky Mountain Council on Latin American Studies 1984*, ed. Garth Hansen; "Production Efficiency among Mexican Apparel Assembly Plants," submitted.

434. ‡Joan B. Anderson (School of Business Administration, USD, San Diego, CA 92110), ‡Martha Sánchez Soler (Del. Estatal del INEA, P.O. Box 5304, Calexico, CA 92231)
Growth and Productivity of the Cooperative System in the Mexican Border Region

The first phase of this study examines the impact of political climates on the growth and survival of cooperatives by state and by sector. A second phase will compare the efficiency of cooperatives to that of other firms in the apparel assembly industry. The study uses cross-tabulations and regression analysis.

Begun Jan. 1983. Ongoing. USD. Publication: "Impact of Political Intention on the Cooperative System in the Mexican States of Sonora and Baja California" (Paper presented to the Association of Borderland Scholars, San Diego, Calif., Apr. 1984).

435. Douglas K. Anthony (Graduate School of Architecture and Urban Planning, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024)
Transborder Commerce and Twin-City Development along the Mexican-U.S. Border

This study explores the role of transborder commerce in the development of the twin border cities of Mexicali and Calexico and emphasizes Mexicali's dependence on basic consumer goods from the U.S. Field research for this study took place during 1982 and thus incorporates a perspective on the 1982 peso devaluations. Based on numerous primary research sources, the study traces the development of border markets in the twin cities of Mexicali and Calexico and describes the effects on these markets of the devaluations.

Begun June 1982. Completed 1984. Tinker Foundation. Publication: "Transborder Commerce: The Case of the Mexicali-Calexico Twin Cities," forthcoming.

436. ‡Anthony I. Asiwaju, Rojer Gravil (Dept. of History, Univ. of Lagos, Lagos, Nigeria)
A Comparative History of the U.S.-Mexican and Nigerian Borderlands

This project assumes a comparability between the historical experiences of two border regions. Borderlands in the two areas have resulted from a characteristically colonial imposition of arbitrary boundaries. The U.S.-Mexico boundary as point of contact between the Anglo-American and Latin cultures compares quite well with the Anglo-French configuration of culture contact along each of Nigeria's international boundaries. The effects have been more or less the same for partitioned Indian and Chicano culture areas in the one case and the mutilated ethnic territories of local African peoples in the other. Furthermore, similar complications arise in the adjudication of claims on shared resources such as land, water and mineral deposits. The migratory "pull effect" of unequal development between the U.S. and Mexico also occurs between Nigeria and each of its territorially smaller and materially less-endowed neighbors. Clandestine cross-border migration and trade have resulted in each case. The researchers expect to discover mutual lessons on matters of policy; they will draw largely from published sources and field investigations for their evidence and will conduct a thematic comparative analysis.

Begun Feb. 1983. EDC Jan. 1985. Univ. of Lagos. Publication: R. Gravil, "The Expulsion of Mexicans in the 1930s Compared with the Nigerian Expulsion of Aliens in the 1980s" (Paper presented at the Symposium on the U.S.-Mexican Border: An International Perspective, Univ. of Warwick, Coventry, England, May 1984).

437. ‡Ana María Aviles Muñoz, ‡Silvia Leticia Figueroa Ramírez (IIS, UABC, Atenas 151, Fracc. Villafontana, Mexicali, B.C.N. 21180)

The Productive Structure of the Border Economy

The level of development of small-scale river fisheries on Baja California's west coast constitutes the focus of this study, which seeks to identify the potential of these fisheries for future growth. Such growth will depend on the availability of resources, their incorporation into markets of products for human consumption, the role of middlemen, consumer response, and access to principal distribution centers. The methodology, based on an analysis of forms of production, permits the researchers to examine levels of economic participation and the processes of production and subordination. They will use their findings to determine profit levels and to describe the labor process and the economic actors involved. Their study will also examine the utilization of financial support, the availability of infrastructure and equipment, the production, commercialization, and destination of surpluses, the degree of physical accessibility to the product, and the overall needs of the fisheries sector.

Begun Aug. 1983. EDC Dec. 1984. SEP/UABC. Publication: "Estructura productiva de la economía fronteriza: las pesquerías ribereñas de pequeña escala en Baja California," *Estudios Fronterizos*, forthcoming.

438. Bruno Buckler (Institut fuer Soziologie, Free Univ. of Berlin, Babelsberger Str. 14-16, 1000 Berlin 31, Federal Republic of Germany)

Social Infrastructure and Social Classes in Tijuana

This quantitative study of the residents of a growing border city will utilize census data from Baja California, interview data from standardized schedules and open-ended formats, and secondary sources. The study will focus on the reproduction of a society characterized by class segregation and on the role of the educational system as a mechanism of social reproduction. The study will describe the educational infrastructure and examine the degree of access to it, given a certain level of social reproduction.

Begun Nov. 1983. Ongoing. Carl Duisberg Gesellschaft, Free Univ. of Berlin.

439. ‡Edgar W. Butler (Dept. of Sociology, UCR, Riverside, CA 92521), James B. Pick (Graduate School of Administration, UCR, Riverside, CA 92521)

Border Demographic Growth and Interchange: Mexicali, Baja California and Imperial County, California

This project focuses on the adjacent border metropolitan regions of Mexicali and Imperial County. It aims to elucidate the causes of migration and to measure fertility in the regions. It will also study variations in migration, fertility, and related variables in the geographic subunits of the regions, project the population and age distributions of the regions to the year 2020, and assess the policy implications of the findings. The study views Mexicali and Imperial County as one region with a "porous" border. As much as possible, the investigators will subclassify the population of Imperial County by ethnicity and will give special attention to education in attempting to explain differences between Hispanic and Anglo fertility. The project's sources include U.S. and Mexican censuses (1890-1980), the *World Fertility Survey,* U.S. and some Mexican vital statistics data, and INS data. The research will employ such methodological devices as multivariate analysis, population projection methods, and computer mapping and graphics.

Begun Apr. 1982. Ongoing. UC MEXUS/Center for Research in the Behavioral and Social Sciences, UCR.

440. ‡Edgar W. Butler (Dept. of Sociology, UCR, Riverside, CA 92521), ‡James B. Pick (Graduate School of Management, UCR, Riverside, CA 92521)

Fertility and Migration among *Maquiladora* Workers

The fertility and migration experiences of *maquiladora* workers are examined in this project. Data sources include a large-scale survey of *maquiladora* workers, which will be compared with 1980 census data. In addition, the researchers will use the *World Fertility Survey's* section on Mexico to compare the migration and fertility experience of *maquiladora* workers with those of women living elsewhere in Mexico. The researchers expect to report results within the coming year.

Begun Aug. 1984. Ongoing. UC MEXUS.

441. ‡María L. Chávez, ‡James P. Loucky (Dept. of Anthropology, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024)

Children as Culture Brokers at the Home-School Interface in Border Communities

Through their schooling and because of their cognitive malleability, children are a key to the adaptation of families migrating to the northern Mexico border region and into the United States. This ethnographic research with children, parents, and teachers in a California border community documents age, sex, and the ways in which children's roles and values vary between home and school environments, as well as how brokering between the two domains affects the variation. The study has shown that children help stabilize and empower poor families within the fluid border setting both economically and by facilitating bilingualism, literacy, and information transfer. The researchers plan to extend the study, using a similar methodology of repeated interviews of multiple targets, observations of children, and household time allocation records, among Oaxacan families in Baja California and California.

Begun Sept. 1982. Ongoing.

442. ‡Norris C. Clement, ‡Jill M. Zachman (Institute for Regional Studies of the Californias, SDSU, San Diego, CA 92120)

Transborder Land-Use Planning: The Case of Otay Mesa/Mesa de Otay

Development planning in the Otay Mesa/Mesa de Otay area of San Diego and Tijuana began almost twenty-five years ago and has become one of the most complex planning issues along the U.S.-Mexico border. This study documents the sequence of events which have led to the present situation; identifies potential patterns of industrial and commercial/service development; and explores whether binational coordination is considered essential for the successful development of the Mesa, by whom, and under what precise land-use conditions. The researchers document events through the use of a taxonomy permitting classification of information collected from U.S. and Mexican planning documents. To identify development patterns and the role of binational coordination in that development, the researchers interviewed selected U.S. and Mexican public- and private-sector actors involved in the planning and decision-making processes on Otay Mesa and Mesa de Otay. The study summarizes data in categories permitting analysis of the relationships among types of actors, the value that they place on binational coordination, and the land-use patterns which they consider most likely to occur on the Mesa.

Begun Sept. 1983. Completed 1984. Institute for Regional Studies of the Californias, SDSU.

443. José Luis Contreras Valenzuela (CEFNOMEX, Abelardo Rodríguez 21, Zona del Río, Tijuana, B.C.N. 22320)

Agricultural Mechanization, Employment, and Migration in Northern Tamaulipas

This research examines the agricultural development model recently adopted in the irrigation districts of northern Tamaulipas and its effects on employment and migration among the rural population in the region. The study postulates first that the internationalization of the productive process apparent in the new international division of labor (reflected in this case in the rural Tamaulipan economy) is a primary source of capital accumulation in Mexican agriculture; its second postulate is that the process will play an important role in capital accumulation for U.S. agriculture as well. Sources of information include published statistics, interviews with directors of irrigation districts, and fieldwork.

Begun Nov. 1983. Completed 1984. CEFNOMEX.

444. ‡José Luis Contreras Valenzuela, ‡María Ramona Valdez Cota (CEFNOMEX, Abelardo Rodríguez 21, Zona del Río, Tijuana, B.C.N. 22320)

Patterns of Family Income and Expenditures in Baja California

This study of family income in Baja California considers such issues as which family members contribute to family income and at what types of jobs they are employed; whether they derive their income from salaries, business earnings, or remittances; and on what goods and services they spend income, including daily expenses, unusual expenses, savings or investments, capital goods, and remittances. The universe of the study includes the entire urban population of Baja California Norte, and the researchers collected responses to a questionnaire from 4,167 randomly selected persons living in Mexicali, Tecate, Tijuana, and Ensenada. The data are currently being analyzed.

Begun Apr. 1984. EDC Dec. 1984. CEFNOMEX.

445. ‡Alfonso Corona R. (Facultad de Economía, UNAM, C.U., México, D.F. 04510), Juan Sánchez-Gleason (Banco de México, Bolívar 15, México, D.F.)

Industrial Integration of the Northern Border States into Mexico's National Economy

Mexico's present economic crisis offers the opportunity to "capture" the northern border regions for the national economy through the integration of the industrial plants of the northern states among themselves and with the main industrial regions of the country. The planning required to accomplish this interaction involves intersectoral and interstate input-output flow analysis aimed at uncovering investment opportunities at the input-output intersections of state matrices. This exercise includes transborder flow analysis pointing out the destination and origin markets of inputs and outputs; the location and quantification of natural, economic, and human resources in selected urban centers which may facilitate industrial growth with positive regional impacts; and the evaluation of infrastructures, urban resources, and interurban networks in the selected towns. To foment integration, these centers must be located away from the international boundary but should have good access to U.S. markets. The researchers hope to use this analysis to produce policy recommendations and a portfolio of pre-investment profiles.

Begun Aug. 1983. Completed 1984. CONACYT/Ford Foundation.

446. Barbara A. Driscoll (CEFNOMEX, Abelardo Rodríguez 21, Zona del Río, Tijuana, B.C.N. 22320)
Inventory of Primary Sources on the History of the U.S.-Mexican Border

This project will identify, inventory, and catalog sources of primary historical documentation regarding the U.S.-Mexico border region after the Treaty of Guadalupe Hidalgo. The researcher is seeking documentation in both countries and is making a special effort to locate information which has heretofore not been considered relevant to the border region. All genres of documentation will be included in the project — government documents, correspondence, maps, photos, journals, etc. Data about the location, accessibility, and other characteristics of the documents are being entered into a computerized database, from which sublists will be extracted. The researcher intends to produce a research tool that will provide any researcher from any discipline with the information necessary to include an historical dimension in border-related research.

Begun July 1983. EDC indefinite. Ford Foundation/CEFNOMEX. Publication: "Chicana Historiography: A Research Note on Sources of Primary Historical Documentation in Mexico," in *Proceedings of the National Association of Chicano Studies*, 1984.

447. ‡Roger M. Dunn, ‡Silvia J. Santos, ‡Cindy L. Sutton (Psychology Dept., SDSU-Imperial Valley Campus, 720 Heber Ave., Calexico, CA 92231)
Affective States at the Mexico-U.S. Border Crossing

A survey of 120 respondents waiting in line to cross from Mexicali to Calexico offered a preliminary description of the affective states related to the typical 20-40 minute wait. The survey items, in English and Spanish, were derived from the Edwards Personality Inventory scales of persistence, competition, conformity, independence of opinion, anxiety, and anger. The surveys were distributed to vehicles with one or more passengers at the end of the line and retrieved one-half mile (15 minutes) later. In general, respondents reported introversion, a tendency to avoid arguments, and frustration with changes in routine. Approximately half reported difficulty relaxing, anxiety when competing, general nervousness, hesitation to be assertive, and a negative attitude toward authority figures. The response pattern on several variables varied with gender.

Begun Jan. 1984. Completed 1984. SDSU-Imperial Valley Campus. Publication: "Affective States at the Mexico-USA Border Crossing," submitted.

448. ‡Roger M. Dunn, ‡Silvia J. Santos, ‡Cindy L. Sutton (Psychology Dept., SDSU-Imperial Valley Campus, 720 Heber Ave., Calexico, CA 92231)

Crossing the Mexico-U.S. Border: Economic Incentive and Perception of the U.S. Immigration Service

This study provides a preliminary description of several factors relevant to crossing the U.S.-Mexico border. It examines the incentive to cross, the economic impact of crossings on the city of Calexico, and border crossers' perceptions of the U.S. Immigration Service. The survey items, in Spanish and English, were distributed to 120 respondents waiting in line to cross the border from Mexicali to Calexico. Occupants of vehicles with one or more passengers received the survey materials at the end of the line and returned them one-half mile (15 minutes) later. The majority (96%) of the sample were residents of Mexico. The primary incentive for crossing among female respondents was shopping; for males, employment. The respondents reported that a tolerable length of time to wait in line was approximately 25 minutes; the average wait was 30 minutes. Most reported normal or friendly interaction with immigration personnel. The respondents generally felt that the efficiency of the immigration system, as opposed to that of individual officers, needed improvement.

Begun Jan. 1984. Completed 1984. SDSU-Imperial Valley Campus. Publication: "Crossing the Mexico-U.S. Border: Economic Incentive and Perception of the U.S. Immigration Service," *Journal of Inter-American Studies and World Affairs*, submitted.

449. ‡Frida Espinoza, Jesús Tamayo (Programa de Estudios Regionales, CIDE, A.P. 10-883, Carretera México-Toluca, Km. 16.5, México, D.F. 01210)

Mexico's Northern Border in the 1980s

This update of the economic and sociodemographic profile of Mexico's northern border regions draws on 1980 census data to identify changes in border-town demographics between 1970 and 1980. The updated profile includes information on the following: population growth and population distribution by sex and age group; size of the economically active population and distribution by occupation; and housing, health, and education indicators.

Begun Sept. 1984. EDC indefinite.

450. Víctor Alejandro Espinoza Valle (Facultad de Ciencias Políticas y Sociales, División de Estudios de Posgrado, UNAM, Eugenia 37, Col. Nápoles, México, D.F. 03810)
The Middle Class in Border Life: Baja California Norte

This study attempts to identify the economic, political, and cultural elements of Baja California's middle class and to define the concept of "border." The study is based on the hypothesis that the existence of a free-trade zone and proximity to California shape these middle-class elements in Baja California. The research consists of a theoretical-conceptual analysis of secondary sources and a period of fieldwork and surveys to obtain primary data.

Begun Aug. 1984. EDC Aug. 1987. Publications: "Hacia una interpretación de la crisis de la frontera norte," submitted; "El control obrero en la industria maquiladora fronteriza (Condiciones laborales y sindicatos oficiales)," forthcoming; "Acerca del concepto de interés, ideología y crítica de la ideología en Jurgen Habermas," forthcoming.

451. ‡Margaret Fitzsimmons, ‡John Friedmann (Urban Planning Program, GSAUP, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024)
Urbanization in the Border Region

This project will produce one of several volumes to be published as part of UCLA's atlas on the border region. The volume will contain a number of essays, illustrated with maps, on various aspects of border urbanization.

Begun 1983. EDC 1985. UC MEXUS.

452. David Fernando Fuentes Romero (IIS, UABC, Montecarlo y Atenas 151, Mexicali, B.C.N. 21180)
Tijuana: Urban Development in a Border Context

This study of Tijuana's birth and growth examines variables which encouraged the city's urban development. The historical perspective permits the researcher to analyze crosscuts of time and to ascertain with precision which set of factors most influenced Tijuana's population growth and development pattern at any specific moment. It illuminates as well periods of change and how they came about.

Begun Aug. 1983. Completed 1984. SEP.

453. David Fernando Fuentes Romero (IIS, UABC, Montecarlo y Atenas 151, Mexicali, B.C.N. 21180)
Urban Development and the Labor Force along Mexico's Northern Frontier

Border cities, especially Tijuana, serve both as final destinations and as migratory channels for increasing numbers of migrants. As a result, these cities are now experiencing an urgent need to understand the characteristics of this migratory labor force, especially regarding the migrants' propensity to remain permanently in the border area or to migrate again, either returning to their homes or moving on to the United States. This project aims at identifying and examining the objective and subjective factors which affect the integration of migrants into urban areas as labor, consumers, and users of various services.

Begun Apr. 1984. EDC Mar. 1985. SEP.

454. Rogelio García-Ruiz (División de Estudios Superiores, Instituto Tecnológico Matamoros, Carretera a la Playa, Km. 5, Matamoros, Tamps. 87350)
A Strategy for Regional Development in Matamoros, Tamaulipas

This project examines the factors which have influenced the structure of development in Matamoros. Aimed at promoting the region's integration into the national development process, the study hypothesizes that the development of economic activities linked to the national production will increase not only the economic but also the social and cultural integration of the border region into national life. This description of phenomena affecting development includes an examination of the region's economic structure, the participation of various economic actors, and the minimal requirements for improving the well-being of the population.

Begun Aug. 1984. EDC Dec. 1984.

455. ‡Bernardo González-Aréchiga, ‡Kenneth L. Shellhammer (CEFNOMEX, Abelardo Rodríguez 21, Zona del Río, Tijuana, B.C.N. 22320)
Economic Monitoring along Mexico's Northern Border

This project examines the flows of materials and people along Mexico's northern border as these interact to shape the region's economic structure. It also examines the relationship of the border economy with that of central Mexico and with foreign markets. Hypothesizing that border evolution is a function of ties to the U.S. and to central Mexico, the researchers will directly monitor economic activity at several points along the U.S.-Mexico border (through interviews and the analysis of quantitative economic data) and will supplement this field research with secondary sources.

Begun June 1984. Ongoing. CEFNOMEX.

456. ‡Carlos B. Graizbord Ed, Francisco Malagamba A. (Dpto. de Planificación Urbana y Ambiental, CEFNOMEX, Abelardo Rodríguez 21, Zona del Río, Tijuana, B.C.N. 22320), Roger Caves (Dept. of Public Administration and Urban Studies, SDSU, San Diego, CA 92182)
Transborder Geographic Information System

The researchers are currently developing a geographic information system based on a databank which includes computer-generated maps of the Tijuana-San Diego area. This system, which will serve as both an information resource and a research tool for future regional and urban planning, functions in six modes: preliminary analysis, appraisal of desirability and potential use, impact analysis, policy simulation, policy analysis, and simulation games.

Begun Aug. 1983. EDC Dec. 1984. CEFNOMEX/SDSU. Publications: "Un enfoque para la planificación y administración transfronteriza ambiental y del uso del suelo," in *Proceedings of the Symposium on Bioresources and Environmental Hazards of the U.S.-Mexico Borderlands*, 1983; "Metas para la cooperación en la planificación y administración transfronterizas," in *Proceedings of the 32nd Annual Meeting of RMCLAS*, 1984.

457. Niles M. Hansen (Dept. of Economics, UT-Austin, Austin, TX 78712)
Transborder Cooperation Processes in the U.S.-Mexico Borderlands

This project utilizes survey research on the Mexican and U.S. sides of the border to examine a number of hypotheses concerning the nature and significance of transborder cooperation efforts.

Begun Aug. 1984. EDC Aug. 1985. NSF.

458. Alberto Hernández (CEFNOMEX, Abelardo Rodríguez 21, Zona del Río, Tijuana, B.C.N. 22320)
The History of Settlement along Mexico's Northern Border: The Case of Colonia Libertad

This project analyzes the establishment and development of an urban border settlement and examines its relationship with Mexican migration to the U.S. It will focus especially on the experience of community organizations, a history which documents the internationalization of socioeconomic processes characteristic of Mexico's northern border. The research depends primarily on participant observation, oral histories, interviews, and an in-depth literature review.

Begun Jan. 1984. EDC May 1985.

459. Lawrence A. Herzog (Dept. of Urban Studies and Planning, D-009, UCSD, La Jolla, CA 92093)
The San Diego-Tijuana Border Metropolis

This project summarizes data which compare the spatial structure and local political organizations on each side of the border which divides the San Diego-Tijuana international metropolis. Data for the study have been collected from local archival sources, interviews, public documents, and maps.

Begun Jan. 1983. Completed 1984. Academic Senate Research Grant, UCSD. Publications: "The San Diego-Tijuana Border Metropolis," in *U.S.-Mexico Border Urbanization Atlas*, eds. John Friedmann and Margaret Fitzsimmons, forthcoming; "Comparative Aspects of Urban Development and Planning in Twin Cities on the U.S.-Mexico Border," *Social Science Journal*, forthcoming.

460. ‡Norris Hundley, Juan Gómez-Quiñones (Dept. of History, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024)
Historical Atlas of the Mexico-United States Borderlands

The fourth volume of a multivolume *United States-Mexico Borderlands Atlas*, the *Historical Atlas* will be authored by both Mexican and U.S. scholars and published in an English-Spanish format. The compilers plan to include numerous historical maps and other appropriate illustrations.

Begun 1982. EDC 1986. CSRC, UCLA/UC MEXUS.

461. Arturo Ibarra-Ojeda (Dpto. de Sociología, UAM-Iztapalapa, Av. Purísima y Michoacán, Iztapalapa, México, D.F. 09340)
Politics and Development in a Border Community

The political structure, historical evolution, and social development of Mexicali, Baja California constitute the focus of this study. The principal hypothesis proposes that various socioeconomic and cultural elements have interacted in Mexicali to produce a political culture which differs from that of the rest of Mexico in that its residents display high levels of political and economic participation. The methodology employed includes literature and census reviews and fieldwork.

Begun 1977. EDC indefinite. Publication: "Lineamientos básicos para una investigación sociopolítica (las demandas campesinas en la LCA de Baja California)" (San Luis Potosí: Univ. Autónoma de San Luis Potosí, 1977).

462. ‡Helen Ingram (Dept. of Political Science, Univ. of Arizona, Tucson, AZ 85721), Lee Brown (Dept. of Economics, UNM, Albuquerque, NM 87106), Stephen P. Mumme (Dept. of Political Science, Colorado State Univ., Fort Collins, CO 80523), Gary Weatherford (John Muir Institute, UCB, Berkeley, CA 94720)
Institutional Options for Managing Rural Water Resources in the Southwest

This three-year study examines how economic, legal, and political trends are affecting the water resource base of rural communities in the "four corners" states. It will attempt to describe the changes affecting the water base of rural communities, to detail the consequences arising from these changes, and to assess the types of institutional alternatives appropriate to different communities for better managing their water resource base. Part of the project will focus on border communities and U.S. water relations with Mexico.

Begun Aug. 1982. EDC May 1985. Ford Foundation/John Muir Institute, UCB.

463. ‡Milton H. Jamail (Dept. of Government, UT-Austin, Austin, TX 78712), ‡Stephen P. Mumme (Dept. of Political Science, Colorado State Univ., Fort Collins, CO 80523)
Engineering Diplomacy: The International Boundary and Water Commission, the United States, and Mexico: 1944-Present

This study seeks to describe and analyze the performance and development of the International Boundary and Water Commission since 1944, the year of its modern institutional formation. The study concentrates on diplomatic aspects of IBWC's operations, considering both international and domestic sources of diplomatic and administrative behavior. The study employs archival, legal, and interview data to examine the functions, accomplishments, and problems of the modern commission.

Begun Aug. 1982. EDC Aug. 1985. Publications: "The International Boundary and Water Commission as a Conflict Management Agency in the U.S.-Mexico Borderlands," *Social Science Journal* 19 (1982); "Regional Power in National Diplomacy: The Case of the U.S. Section of the International Boundary and Water Commission," *Publius*, forthcoming.

464. Conrad G. Keyes, Jr. (Dept. of Civil Engineering, New Mexico State Univ., Las Cruces, NM 88003)
Water Research Needs and Options for New Water Supplies in Northern Mexico

Before considering priorities for research on water and options for new water supplies, one must first describe available water resources, look at water use and projections, and examine the present water-management programs of state and federal agencies. The investigator has assessed the perceived need for water research reported by others and has estimated the water savings attainable through the adoption of various alternative supplies of new water. He has also predicted the cost of each alternative and has identified education and the development of some new water resources as the next step in selecting new water supplies in the northern states of Mexico.

Begun Apr. 1984. Completed 1984.

465. Clark S. Knowlton (Dept. of Sociology, 301 BEH, Univ. of Utah, Salt Lake City, UT 84112)
The Mora Land Grant: A Microcosm of New Mexico History

This socioeconomic history examines the Mora Land Grant of north-central New Mexico, one of the largest community land grants in the state, given to the Mora settlers by the Mexican government. Anglo-American members of the Santa Fe Ring, including Thomas B. Catron and Elkins Early, entered a struggle to secure ownership of the land, which from 1878 to almost 1935 became the subject of protracted litigation. Many of the legal concepts utilized by Anglo-American lawyers to secure legal title to the common lands of community land grants may have been invented during the course of this litigation. The study will focus on the socioeconomic and political history of the grant, but it will also consider the impact of land loss upon the Spanish-American inhabitants of the community.

Begun Jan. 1982. EDC Dec. 1985.

466. Corinna Kusel (Institut fuer Soziologie, Free Univ. of Berlin, Babelsberger Str. 14-16, 1000 Berlin 31, Federal Republic of Germany)

The Changing Role of *Maquiladoras*: Implications for Women Factory Workers

During their early years, assembly plants in Mexico benefited from a cheap and abundant labor supply. Following the 1982 devaluation, foreign companies hoping to exploit the now even more desirable labor supply accelerated the growth of the *maquila* industries, but they encountered a phenomenon new to the border area — a labor shortage. This study attributes the labor shortage to the poor wages in the assembly plants, wages so low as to be inadequate for subsistence. Within this deteriorating economic situation, workers find seasonal migration to the U.S. the only viable option for the reproduction of labor, and this has eliminated women factory workers as the source of an industrial reserve army. The researcher conducted interviews with women and employers in Tijuana during 1984 and projects similar fieldwork in Ciudad Juárez during 1985.

Begun Nov. 1983. EDC Dec. 1985. Free Univ. of Berlin.

467. Jerry R. Ladman (Dept. of Economics, Arizona State Univ., Tempe, AZ 85287)

U.S.-Mexico Border Economy: Interdependence, Growth, and Prospects for Change

This project describes the economy of the U.S. border region and its interdependence with Mexico, using a theoretical framework. The paper analyzes the border economy by economic sector and subregional economies and projects future economic growth in the region. Data sources include population, industrial, and agricultural censuses from the U.S.

Begun Jan. 1984. Completed 1984.

468. Jerry R. Ladman (Dept. of Economics, Arizona State Univ., Tempe, AZ 85287)
Economic Interchange and Industrialization in the U.S.-Mexico Border Region

This project examines the U.S. border economy and industrialization strategy in the U.S.-Mexican border region. Results show that the United States has not had a strategy for industrialization in the border region, quite in contrast to Mexico's active policy to industrialize its northern border cities. Data sources include the population census and industrial census of the United States.

Begun Jan. 1984. Completed 1984.

469. ‡Ludwig Lauerhass, Jr. (Latin American Center, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024), Norman Thrower (Dept. of Geography, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024), James W. Wilkie (Dept. of History, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024)
United States-Mexico Borderlands Atlas

This project is part of a long-range program of United States-Mexico border studies and Mexican studies at UCLA. Other aspects of the project include development of a bibliographic database; production of a borderlands statistical abstract; and publication of research monographs.

Begun 1980. EDC 1986. UC MEXUS.

470. Miguel León-Portilla (IIH, Torre de Humanidades I, 7° piso, UNAM, C.U., México, D.F. 04510)
Indigenous Populations along the U.S.-Mexican Border

The methodologies of ethnohistory and cultural anthropology are combined in this study which examines the impact of diverse indigenous groups in the border region from the pre-conquest period to the present. Data sources include historical and archaeological materials; colonial chronicles; and recent fieldwork among these groups, some of which was conducted by this researcher.

Begun Dec. 1983. EDC Dec. 1984. UNAM. Publications: "The Norteño Variety of Mexican Cultures: An Ethnohistorical Approach," in *Plural Society in the Southwest*, eds. Edward H. Spicer and Raymond Thompson (New York: Weatherhead Foundation, 1972); "Aztecs and Navajos: A Reflection on the Right of Not Being Engulfed," Occasional Paper of the Weatherhead Foundation (New York: Weatherhead Foundation, 1975).

471. Francisco A. Lomelí (Dept. of Chicano Studies, UCSB, Santa Barbara, CA 93106)
Border Narrative

This project aims at the compilation of a series of narrative books with relevance to the border region either as the setting of the narrative or the home of the author. Given the newness of "border narrative" as a literary classification, the researcher has begun by attempting to ascertain what makes a work or an author relevant to the border experience. Proceeding from this definition, the researcher will identify any constants in the genre, particularly with regard to similarities or differences in the works that reveal either homogeneity or divergence as a consequence of the border as an element of the work. The researcher also hopes to establish a series of relationships between Chicano and Mexican writers.

Begun May 1984. Ongoing. UC MEXUS.

472. Harald Lossack (Institut fuer Soziologie, Free Univ. of Berlin, Babelsberger Str. 14-16, 1000 Berlin 31, Federal Republic of Germany)
Housing and Infrastructure Problems in Tijuana

The project concentrates on the specific problems of housing and infrastructure created by the continuous flow of migrants to the city of Tijuana, B.C.N. The unrivaled growth of the city in the past few decades has occurred as a response to economic changes and governmental policies to attract investments to the borderlands. The main goal of the project is to describe housing conditions among the migrants and to assess their levels of access to urban infrastructure. The study hypothesizes that housing quality and access to infrastructure for the migrants depend mainly on the degree of their participation in the urban labor market and their income levels. One of the principal research questions is whether development led to segregation by social class of Tijuana's population. This research, based on census data, oral histories, and published research on the topic, will examine governmental housing programs.

Begun Nov. 1983. Ongoing. Carl Duisberg Gesellschaft, Free Univ. of Berlin.

473. ‡G. William Lucker, Adolfo J. Alvarez (Dept. of Psychology, UTEP, El Paso, TX 79968)
Job Satisfaction and *Maquiladora* Work

Although the *maquiladora* industry of northern Mexico has been plagued with criticisms of worker exploitation, literature on the industry reveals very little data to support these allegations. The present study explores these charges of exploitation by examining *maquiladora* workers' attitudes about their jobs. Job satisfaction surveys were administered to all 497 female workers at two coupon-processing plants in Cd. Juárez, Chihuahua. The results of the study provide no evidence of exploitation in these plants; in fact, worker attitudes were quite positive. Workers reported being adequately trained and equipped for their jobs, that the amount of work required of them was fair, and that they were not pressured to perform beyond their capacities. A significant minority called their work "entertaining," while only a small number reported boredom with their jobs. Finally, the vast majority of workers reported being happy with their jobs and stated that they would recommend work at their plant to a friend seeking work.

Begun Nov. 1983. Completed 1984. Publication: "Exploitation or Exaggeration: A Worker's-eye View of *Maquiladora* Work," *Southwest Journal of Business and Economics* 1:4 (1984):11-18.

474. ‡G. William Lucker, Harmon M. Hosch (Dept. of Psychology, UTEP, El Paso, TX 79968)
Worker Attributes, Job Satisfaction, and Productivity at a Twin-Plant *(Maquila)* Operation

The researchers have collected data assessing worker attitudes, job satisfaction, and selected aspects of personality (e.g., achievement motivation and masculinity/femininity) about all workers at a small twin-plant operation *(maquiladora)* in Ciudad Juárez. In addition, the investigators have compiled work records (e.g., absenteeism, tardiness, percentage of quotas completed, and supervisor evaluations) for all workers and will do so again in approximately six months to one year. The study will assess the relationship between attitudes and satisfaction on the one hand and job productivity on the other. In addition, it will develop and test a selection instrument. As a secondary goal, the research will assess the effectiveness of a "quality circle" program instituted at the factory. The researchers intend to compare the attitudes and productivity of workers in quality circles to those of workers in the same plant who do not belong to quality circles. Since the circles were established at different times, the investigators will also look for a development component to attitude and productivity changes.

Begun July 1982. Ongoing.

475. David R. Maciel (Dept. of History, UNM, Albuquerque, NM 87131)
***La Frontera*: The U.S.-Mexico Border in Contemporary Cinema**

This study examines various themes of the U.S.-Mexico border (immigration and labor, the Chicano experience, society, and humor, among others) as depicted in North American and Mexican cinema from 1953 to the present. The study will focus upon the relationship between ideology, society, and film. Its other themes include stereotypes and social reality, commercial and independent cinema, and a cross-cultural analysis of United States and Mexican contemporary cinema dealing with the border. The methodology includes a content analysis of the films, interviews, and primary and secondary documentation.

Begun July 1979. Ongoing. Publication: "Visions of the Other Mexico: Chicanos and Undocumented Workers in the Contemporary Mexican Cinema, 1945-1982," in *Chicano Cinema: Research Reviews and Resources*, ed. Gary D. Keller (New York: Bilingual Review Press, 1984).

476. Francisco Malagamba A. (Dpto. de Estudios Urbanos y Medio Ambiente, CEFNOMEX, Abelardo Rodríguez 21, Zona del Río, Tijuana, B.C.N. 22320)
Shared Subterranean Aquifers: Potential for Conflict

The exploitation of subterranean water resources by both Mexican and U.S. border populations forms the focus of this study, which considers the historical antecedents defining the current limits to development, including overexploitation of resources, pollution, and uncontrolled consumption patterns. These past problems affect the difficult contemporary questions about water distribution.

Begun Jan. 1984. EDC Dec. 1984. Publication: Jorge A. Bustamante and F. Malagamba, eds., *México-E.U.: Bibliografía general de estudios fronterizos* (México, D.F.: El Colegio de México, 1980).

477. Oscar J. Martínez (Center for Inter-American and Border Studies, UTEP, El Paso, TX 79968)
Border Memoirs: Portrait of Life along the U.S.-Mexico Border

This project, based on oral histories, will present a view of contemporary life in the border region.

Begun 1973. Ongoing. Institute of Oral History, UTEP/NEH.

478. Oscar J. Martínez (Center for Inter-American and Border Studies, UTEP, El Paso, TX 79968)
Troublesome Border:
Historical Essays on the U.S.-Mexico Border

This book-length study explores five themes: the delimitation and maintenance of the U.S.-Mexico boundary; filibustering along the boundary; Indians along the boundary; the border as a source of localized conflict; and Mexicans along the border.

Begun 1981. EDC Dec. 1984. NRC/NEH/Center for Advanced Study in the Behavioral Sciences, Stanford, Calif.

479. Oscar J. Martínez (Center for Inter-American and Border Studies, UTEP, El Paso, TX 79968)
Across Boundaries:
Transborder Relations in Comparative Perspective

This project will produce an edited volume of original contributions by leading scholars on transborder relations in the United States, Western Europe, Eastern Europe, and Africa.

Begun 1984. EDC Dec. 1984. Center for Inter-American and Border Studies, UTEP/Border Research Program, UT-Austin.

480. ‡Michael C. Meyer, Susan M. Deeds (Latin American Area Center, 216 Social Sciences Bldg., Univ. of Arizona, Tucson, AZ 85721)
Disease and Medical Practice in the Hispanic Southwest, 1550-1850

The project will study disease and medical practice in northern New Spain and northern Mexico from the initial Spanish *entradas* to the Treaty of Guadalupe Hidalgo. Research will be undertaken in the Archivo General de las Indias in Spain and the AGN in Mexico City. The researchers will consult a number of provincial archives as well, in an attempt to determine demographic patterns, life expectancy, and the impact of culture contact on disease and health care.

Begun May 1984. EDC May 1987.

481. Alejandro Mungaray Lagarda (Dpto. de Economía, UABC-Tijuana, Ex-ejido Tampico, Mesa de Otay, Tijuana, B.C.N.)
Border and Nation:
The History of Mexico's Northern Border

This study seeks to identify ideological and historical roots in Mexico's northern border region. In this endeavor, the researcher hopes to explain the specific nature of capitalist and commercial development in the region, especially the unequal levels of development between Mexico and the United States. In attempting to explain the configuration of the border area today, the study considers various historical periods: conquest and colonization by the Spanish, English, and French; adjustments and readjustments among these diverse power groups; the independence movements in the U.S. and Mexico; and the formation of the nation-state. Data sources are primarily secondary.

Begun June 1984. EDC June 1985. UABC. Publications: "Región y capitalismo en México: revisión de enfoques," forthcoming; "Frontera y nación: la formación histórica de la frontera norte de México" (Master's thesis, UNAM).

482. ‡Fernando Ortiz Monasterio, ‡Vicente Sánchez (Programa de Desarrollo y Medio Ambiente, El Colegio de México, Camino al Ajusco 20, México, D.F. 01000)
Society and Environment in the Border Area

This project addresses the interaction between society and environment in the border region, where the specific nature of the development process has left the two elements in disequilibrium. Development has occasioned high environmental and social costs and a steadily increasing demand for progressively scarcer resources. The researchers establish priorities among economic sectors according to the harm they cause in the environment, and they analyze policy actions, administrative measures, and other options for environmental planning.

Begun Sept. 1984. EDC Sept. 1986. El Colegio de México/CEFNOMEX/Friedrich Ebert Foundation/Ford Foundation. Publications: "Waste

Isolation Pilot Plant," Working Paper PDMA/A/84/01 (México, D.F.: El Colegio de México, 1984); *Aspectos ambientales del desarrollo de una región fronteriza* (México, D.F.: El Colegio de México/UCLA, forthcoming).

483. ‡Artemisa Pedroza, Jesús Tamayo (Programa de Estudios Regionales, CIDE, Carretera México-Toluca, Km. 16.5, México, D.F. 01210)

Industrial Development Alternatives in the Border Region

This study begins by differentiating between the industrial structure of Mexico's northern frontier and the perceptions of this structure presented in Mexico's national programs for development, industrial growth, and foreign trade between 1984 and 1988. It then attempts to determine the nature and level of integration between this region's industry and U.S. industry. A final goal of the research is to offer alternative strategies for the region's industrial development.

Begun Aug. 1984. EDC indefinite.

484. ‡Charles W. Polzer, Thomas C. Barnes (Arizona State Museum, Univ. of Arizona, Tucson, AZ 85721)

Biofile Southwest: A Data Bank and Biographical Dictionary

Biofile Southwest has compiled biographical data for 19,000 persons appearing in the historical record of northern New Spain. The database drew heavily from the primary document bibliography of the Documentary Relations of the Southwest (DRSW) Project. Biofile Southwest is available as a microfiche set of 35 cards or in an 8,000-page unbound computer printout; its publication in book form is now under consideration. Each entry includes the established name of the subject, variant names or spellings, vital statistics as known, ethnicity, titles, occupations, names of relatives, source information, and miscellaneous notes. Biofile Southwest followed the methods of the DRSW, which involved directed team research and computerization of data. Approximately 80% of the file incorporates primary document information, and 20% has been correlated with secondary sources such as published histories and pertinent lists. Biofile Southwest is available for historical research and in-depth genealogical and demographic studies. Separate indexed lists include the names of 69,000 persons, as well as titles, occupations, and relatives. Biofile Southwest includes Biodex Southwest, a combined index of 150 major historical works on the Spanish colonial Southwest.

Begun Oct. 1981. Completed 1984. NEH. Publication: *Biofile Southwest: A Biographical Dictionary* (Tucson: DRSW, Arizona State Museum, microfiche).

485. ‡Charles W. Polzer, Thomas H. Naylor (Arizona State Museum, Univ. of Arizona, Tucson, AZ 85721)
Documentary Relations of the Southwest

This project focuses on the location, selection, transcription, translation, and annotation of key documents which relate the major institutional evolutions and major historical themes of northern New Spain. The project is part of a large-scale, long-range effort to publish significant documentary histories that can serve as reference points in the analysis and writing of the colonial history of the U.S. Southwest and northern Mexico as an integral region. This study employs standard historical methodology, computer-assisted by another phase of the DRSW project. The publication process for these records follows a series of steps: selection of sensitive documents; composition of an accurate transcription (which is published as a part of the bilingual edition); verification of the transcription against the original; translation of the document into readable and accurate English; and annotation of the documents together with ample background text. The first volumes will depict the evolution of the presidial system in northern New Spain. Other volumes will treat particular ethnic groups (i.e., indigenous peoples) and major Spanish social institutions dealing with mining, labor, land tenure, etc.

Begun 1975. EDC 1990. Univ. of Arizona/National Historical Publications and Records Committee/NEH. Publications: *Northern New Spain: A Research Guide* (Tucson: Univ. of Arizona Press, 1981); *Presidio and Militia on the Northern Frontier of New Spain,* vol. I, 1572-1695, vol. II, 1700-1760 (Tucson: Univ. of Arizona Press, forthcoming); *The Spaniards and the Seris: An Ethnohistory, 1670-1820* (Tucson: Univ. of Arizona Press, forthcoming).

486. Thurber D. Proffitt, III (Dept. of History, UCLA, 15631 Gaymont Dr., La Mirada, CA 90638)
History of Tijuana

This project uses the history of Tijuana to test frontier theory. It analyzes the city's history as a series of sequential and interconnected frontiers through the use of primary sources, statistics, and oral history. The researcher will employ the facilities and archives of the Centro de Investigaciones Históricas, UNAM-UABC, Tijuana, in addition to archives in southern California.

Begun Apr. 1983. EDC Aug. 1985. OAS.

487. John L. Robinson (Dept. of History, Abilene Christian Univ., Abilene, TX 79699)
Analysis of Mexico-U.S. Border Interchange: Del Río-Las Vacas

At the outbreak of the Mexican Revolution, U.S. border officials often recorded the special circumstances created by this upheaval. The researcher has analyzed these records, together with census documents and archival material from both Mexico and the U.S., to provide a portrait of social, economic, and political conditions relating to interchange between the U.S. and Mexico. An analysis of this interchange reveals the role of the U.S. in Mexican development as well as the Mexican input into life in the border regions of the U.S.

Begun Sept. 1980. Completed 1984.

488. ‡María Luisa Rodríguez Sala, Leticia Ruiz de Chávez (IIS, Torre de Humanidades 2, 7° piso, UNAM, C.U., México, D.F. 04510)
Cultural Identity among Social Groups along the Baja California Border

This study seeks to define the social context of the border zone, especially in Baja California, and the social conditions which have led to the appearance, persistence, and modification of cultural characteristics specific to border populations. The researchers emphasize the link between the predominance of certain types of knowledge over others and the level of social and cultural identity among those who share a given type of knowledge. They will measure levels of cultural identity among students and anti-social adolescents, as well as among scientists and other professionals. These measures, combined with prior data from these groups, permit a comparison of identity based on semiological techniques.

Begun Jan. 1981. EDC Dec. 1984. UNAM/CEFNOMEX. Publications: "Algunos aspectos de identidad cultural en grupos sociales de Baja California," *Meyibo,* forthcoming; "Símbolos sociales en adolescentes de Baja California: estudiantes de enseñanza media y menores de conducta antisocial," *Revista Criminalia* and *Revista de la Asociación Mexicana de Abogados.*

489. Martin E. Rosenfeldt (Dept. of Management, North Texas State Univ., P.O. Box 13677, Denton, TX 76203)
Industrial Development in the U.S.-Mexican Border Region

This research examines selected socioeconomic variables influencing industrial development in the U.S.-Mexico borderlands, a region of steadily increasing economic importance. It also describes social and economic interactions among the populations on both sides of the border, which have some of the most poverty-stricken areas in each country. Since industrialization for regional development contributes significantly to employment levels and improved living conditions, the research focuses also on public-sector legislation influencing industrial borderlands development.

Begun Feb. 1982. Ongoing. North Texas State Univ. Publications: "On the Need for a Common Data Base for U.S.-Mexico Borderland Issues," in *Statistical Abstract of the Mexico-U.S. Borderlands* (Los Angeles: Latin American Center, UCLA, 1984); M. Rosenfeldt and Ted Halatin, "Marketing Strategies in a Changing Environment: Emphasis on U.S.-

Mexican Borderland Businesses," *Business and Society*, spring 1984; M. Rosenfeldt and Joe M. Brocato, "Industrial Development in the Lower Rio Grande Valley/Reynosa Borderlands," in *Proceedings of the North American Economics and Finance Association*, 1984.

490. ‡Stanley R. Ross (Mexico-U.S. Border Research Program, 3.201 Sid Richardson Hall, UT-Austin, Austin, TX 78712), Howard G. Applegate (Dept. of Civil Engineering, UTEP, El Paso, TX 79968), Theodore E. Downing, Thomas Weaver (Dept. of Anthropology, Univ. of Arizona, Tucson, AZ 85721), Barbara S. Hutchinson, Charles F. Hutchinson, Jack D. Johnson (Office of Arid Land Studies, Univ. of Arizona, Tucson, AZ 85719), Ernesto Jáuregui, Iván Restrepo Fernández, Manuel Servín-Massieu, Rafael Velasco Fernández (ANUIES, Insurgentes Sur 2133, 3° piso, México 20, D.F.), Michael C. Meyer (Latin American Area Center, Univ. of Arizona, Tucson, AZ 85721), Américo Paredes (Dept. of English, UT-Austin, Austin, TX 78712), Albert E. Utton (School of Law, UNM, Albuquerque, NM 87131), Jorge A. Vargas (Mexico-U.S. Law Institute, USD, San Diego, CA 92110), James W. Wilkie (Dept. of History, 405 Hilgard Ave., UCLA, Los Angeles, CA 90024)
Ecology and Development in the Border Region

The rapid human and economic development of the borderlands has made the issue of this project increasingly important. The contributors sought to study and to anticipate borderlands ecological problems.

Begun 1982. Completed 1984. USICA/ANUIES. Publication: S. R. Ross, ed., *Ecology and Development of the Border Region* (México: ANUIES/PROFMEX, 1983).

491. ‡Vicki L. Ruiz, Sarah E. John (Institute of Oral History, UTEP, El Paso, TX 79968)
Institute of Oral History

The Institute of Oral History collects tape-recorded interviews and related materials concerning the U.S.-Mexico border area; it focuses on the history of the El Paso-Ciudad Juárez area, border labor history, the Mexican Revolution, U.S.-Mexican relations, Chicano history, and other twentieth-century historical events affecting the border.

Begun 1972. Ongoing. State and local funding. Publications: *IOH Bulletin, IOH Catalog of Holdings* (El Paso, Tex.: Institute of Oral History, UTEP).

492. Richard W. Ryan (Dept. of Public Administration, SDSU-Imperial Valley Campus, 720 Heber Ave., Calexico, CA 92231)
Local Government Energy Initiatives in the Imperial Valley of California

This research examines the role of local public agencies and institutions in promoting and implementing energy conservation and solar energy technology in the Imperial Valley. Weak economic growth and increasing energy costs have combined to produce the following areas of potential for local government energy initiatives: low-income housing weatherization; small-business energy conservation; and farm energy conservation and solar drying. In addition, high rates of solar radiation make the area attractive for utilizing solar energy, and the high costs of summer air conditioning make building conservation a consideration for local governments and schools. The research is based on extensive interviews, onsite visits, and an inventory of energy-conservation and solar installations. Interviewees include representatives of city and county governments, local utility companies, schools, the Economic Opportunity Commision, and the California Energy Commission. The study includes an analysis of successful implementation of energy technologies and local obstacles to their dissemination.

Begun Sept. 1982. Ongoing. SDSU Foundation.

493. ‡Luis Sánchez de Carmona (Secretaría de Desarrollo Urbano y Ecología, Av. Constituyentes 947, México, D.F. 01000), Milton H. Jamail (Dept. of Government, UT-Austin, Austin, TX 78712)
Administration in the Border Region

This project seeks to produce a reference guide for individuals researching administrative aspects of the U.S.-Mexico borderlands. It applies legal, institutional, and operational frameworks to regional affairs, formal and informal relations, and administrative processes; and it covers such topics as migration, water resources, health administration, commerce, environmental and urban concerns, industrial promotion and placement, communications and transportation, tourism, and police and security. This volume will form part of the *United States-Mexico Borderlands Atlas,* coordinated by the Latin American Center at UCLA.

Begun May 1984. EDC May 1986.

494. Jacqueline Shanberge (School of Natural Resources, Univ. of Michigan, Ann Arbor, MI 48109)
Cropping Patterns along the Río Bravo/Rio Grande: Options to Alleviate Economic Pressures

Under the joint U.S.-Mexican regulation of the Lower Río Bravo, irrigation water has been supplied to extensive areas south and north of the river. Although both Mexican and U.S. farmers use essentially the same amount of water under similar soil and climatic conditions, their cropping patterns differ dramatically. In Mexico, low-value corn, sorghum, and beans — crops requiring low labor per unit output — are produced almost exclusively. On the U.S. side, high-value, labor-intensive fruits and vegetables are produced, as well as low-value crops such as sorghum, cotton, and corn. Mexico could greatly increase its agricultural revenue by following a similar pattern as that on the U.S. side. Mexico would need to improve yields, to diversify partially into higher-value crops both for export and for domestic markets, and to increase substantially production in the second season. To discover why Mexico has not been following such a path would require an empirical evaluation of the input-output parameters confronting growers on both sides of the border, including an analysis of the reasons for the differences in cropping patterns. Mexican growers, apart from their access to low-cost labor, may differ from U.S. growers in their agricultural practices because U.S. farmers enjoy easier access to capital, greater government support, better implementation of agriculture development and resource conservation programs, and unrestricted access to U.S. domestic markets. In contrast, Mexican farmers are restricted by limited government support and are hindered in exports by U.S. tariffs and non-tariff regulations. They also lack domestic markets for high-value crops and face distortions of market incentives due to government support of staple crops. The results of this study have implications for U.S. import policies, for Mexican irrigation and agricultural policies, and for Mexican agricultural development.

Begun June 1982. Completed 1984. OAS. Publication: "Cropping Patterns along the Rio Bravo/Rio Grande — Options to Alleviate Economic Pressures" (Master's thesis, Univ. of Michigan, 1984).

495. Ross L. Shipman (Main Building 201, UT-Austin, Austin, TX 78712)
Oil and Gas on the U.S.-Mexico Border

This project is aimed at developing a method for equitably allocating resources in hydrocarbon reservoirs which transcend international boundaries. It also focuses on whether it is possible to develop a plan for environmentally compatible exploration and exploitation of transboundary hydrocarbon resources.

Begun 1974. Ongoing. IBWC. Publication: "Energy on the U.S.-Mexico Border," in *Proceedings of Rules of the Game in Border Life, the Symposium of Mexico and United States Universities on Border Studies*, forthcoming.

496. Rosalía Solórzano (Center for Inter-American and Border Studies, UTEP, El Paso, TX 79968)
Female Workers in the Border Region

Working with a sample of 300 undocumented Mexican women working in the U.S., this research describes the contribution which these women make to the U.S. market economy, as well as their socioeconomic, political, and cultural experiences. Employing an eclectic methdology, the researcher is attempting to develop a broad understanding of the condition of undocumented women in the U.S.-Mexico border region.

Begun Sept. 1984. EDC Aug. 1985.

497. ‡Rosalía Solórzano (Center for Inter-American and Border Studies, UTEP, El Paso, TX 79968), Kathy Kopinak (Dept. of Sociology, Kings College, London, Ontario, Canada)
Subcultures in the Borderlands

This study analyzes the development and emergence of Cholo, Punk, and Rocker subcultures along the U.S.-Canadian and U.S.-Mexican borders.

Begun Aug. 1984. EDC Aug. 1985.

498. Adaljiza Sosa Riddell (Chicano Studies Program, T.B. 101, UCD, Davis, CA 95616)
A View from the Border:
The Legal Status of Women in Mexico

This study focuses on the legal status of women in Mexico, specifically evaluating major policy changes instituted since the International Year of The Woman and the impact of those changes on the daily life of Mexican women in selected border cities. The policy changes can be classified into categories such as workplace protection, childcare issues, property ownership, equal rights, access to education, divorce law, and child custody and/or support. The work will begin with a literature review at UC-Davis and the Center for U.S.-Mexican Studies at UCSD. The researcher also plans fieldwork in the border cities of Tijuana, Tecate, and Mexicali, where she will interview prominent women, especially women who hold elective, appointive, or party office, as well as researchers at CEFNOMEX. The resulting information will be developed into a comparative study of women in the border region and policy regarding women's issues.

Begun July 1984. EDC Dec. 1984. Publication: "A View from the Border: Legal Status of Women in Mexico," in *Women's Decade: 1975-1985,* eds. Lynne Iglitzin and Ruth Ross (ABC-CLIO press, forthcoming).

499. James M. Stevenson (Escuela de Ciencias Sociales y Políticas, UABC, Mexicali, B.C.N. 21180)
Effects of the Devaluation of the Mexican Peso
in Mexicali, 1983

This researcher conducted a random sample of 100 households in two different neighborhoods, each of a different social class, in Mexicali, Baja California, in order to evaluate the socioeconomic consequences of the devaluation of the Mexican peso. The 38-item questionnaire included items relating to income, household practices regarding consumer purchasing on both sides of the border, and perceptions of responsibility for the crisis. Copies of the final results are available in Spanish and English.

Begun Nov. 1983. Completed 1984. Administrative Grant, SDSU-Imperial Valley Campus.

500. Ellwyn R. Stoddard (Dept. of Sociology, UTEP, El Paso, TX 79968)
Labor Turnover in the *Maquiladoras* of Cd. Juárez

This investigation of labor turnover in border *maquiladoras* since 1982 utilizes focused interviews with management officials in seven *maquiladoras* and a review of past worker employment, status, and turnover data. The researcher conducted personal interviews with a sample of 260 workers and compiled information on length of service, sex of worker, skill (pay) level, work shift, and the reasons for resignation given by 338 of their fellow workers who had already resigned. The survey also gathered information regarding the worker's age and status as a household income source (number of persons — if any — depending upon that income fully or partially). The study is examining the following as potentially causal factors of labor turnover: domestic responsibilities and familial support or dissuasion; school and education; physical or environmental work factors; shift work; work duties; income; work relations with supervisory personnel (by sex) and with co-workers (by sex); and the impact of 7 potential fringe benefits.

Begun Oct. 1983. EDC indefinite.

501. Ellwyn R. Stoddard (Dept. of Sociology, UTEP, El Paso, TX 79968)
The Syrian-Lebanese in the El Paso-Cd. Juárez Border Region

Something less than a dozen Syrian-Lebanese families have become economically powerful in the El Paso-Cd. Juárez region. Now the operators of national-scale corporations, these families can trace their ancestry to a single Christian refugee woman and her children, who came to this region and began a peddling business with a handcart. The grandchildren now own or manage Farah Manufacturing Co. (apparel), Azar Nut Co., and similar business enterprises in these twin cities. These Near-East refugees, who can be physically confused with Mexican-Americans of the region, suffered persecution and prejudicial isolation as did Mexican immigrants and yet came to the fore of the El Paso and Cd. Juárez business community in two generations. Through personal histories, interviews, and genealogical studies of endogamous marriage, the researcher will examine their values and trials to determine what accounted for their rapid success in the U.S., since they began with the same physical and language obstacles experienced by Mexican-Americans.

Begun Mar. 1984. EDC Mar. 1985. UTEP.

502. Ellwyn R. Stoddard (Dept. of Sociology, UTEP, El Paso, TX 79968)
The Borderlands: History and Policymaking

Based on recent research (mostly unpublished), this project synthesizes and puts in publishable form an overall background of the history and current relationships of the U.S.-Mexico borderlands as they relate to borderlands policymaking.

Begun May 1984. Completed 1984. Hoover Institution, Stanford Univ.

503. Luis Suárez-Villa (Program in Social Ecology, UCI, Irvine, CA 92717)

Industrialization of Border Twin Cities

This study relates recent developments in borderlands industrialization to ongoing regional shifts in the U.S. and the global growth of industrial export enclaves. The work will highlight North-South differences in the industrial structure of twin cities along the U.S.-Mexico border, as evidenced by industry types, factor utilization characteristics, ownership patterns, and institutional arrangements. The final report will provide mappable data and tabulations for the borderlands region in general and for border twin cities in greater detail.

Begun June 1982. EDC Dec. 1984. Publication: chapter in *United States-Mexico Borderlands Atlas: Border Urbanization* (Los Angeles, Calif.: UCLA Latin American Center, forthcoming).

504. ‡Jesús Tamayo, Lourdes Orozco (Programa de Estudios Regionales, CIDE, Carretera México-Toluca, Km. 16.5, México, D.F. 01210)

The Impact of Mexico's Economic Crisis in the Northern Border Region

This detailed recapitulation of significant events in Mexico's national economy during recent months focuses on their direct and indirect consequences in various areas along the country's northern border. The study gives special attention to the impact of monetary, commercial, and fiscal measures enacted after February 1982 and the variation in regional responses to the economic crisis. This first stage of the research examines commercial relations between Mexico and the U.S.; a second stage will attempt to formulate politico-economic strategies by which Mexico could strengthen the ties between border regions and the national economy.

Begun Jan. 1983. EDC Jan. 1985.

505. ‡Aregai Tecle, Martin M. Fogel (School of Renewable Natural Resources, Univ. of Arizona, Tucson, AZ 85721)

Development of an Integrated Model for Optimal Water Resource Management in the Upper Santa Cruz Basin

The Upper Santa Cruz Basin has a semiarid climate and a limited water supply. Population and economic activities are growing quickly in the area, affecting the available water both quantitatively and qualitatively. Urban waste water, treated in aerated lagoons, is recharged into an aquifer, which may affect the quality of water in underground storage. The researchers will first endeavor to determine the quantity and quality of water available in the basin, then will develop a model for the optimal management of the basin's water resources in order to maintain and further enhance the area's economic development. The researchers will gather hydrologic and hydrogeologic data, along with data about economic activities and other relevant information.

Begun Aug. 1981. EDC Aug. 1985. School of Renewable Natural Resources, Univ. of Arizona.

506. Guillermo Teutli Otero (Dpto. de Ciencias Políticas, UNAM, A.P. 27-597, C.P.O., México, D.F.)
Socioeconomic Development of Mexico's Northern Frontier

This study, which proceeds from the hypothesis that neither local businesses nor national development policies gain maximum benefit from the country's northern border market, endeavors to detect primary economic activities which can exploit the relative advantages of the border's development poles. Fieldwork and information from chambers of commerce, business associations, and government ministries provide the data for this socioeconomic profile of the area and analysis of development measures for the region.

Begun Mar. 1984. EDC Dec. 1984.

507. Guillermo Teutli Otero (Dpto. de Ciencias Políticas, UNAM, A.P. 27-597, C.P.O., México, D.F.)
The *Maquila* Industry and Development along Mexico's Northern Frontier

In order to determine the contribution of *maquiladoras* to border development and their relationship to national productive activities, this project tests the hypothesis that the twin-plant export industry supports industrial development in the border region but is not the foundation of that development. Fieldwork, statistical analyses, and industrial profiles provide the data for this study.

Begun May 1984. EDC Feb. 1985.

508. Wilbert H. Timmons (Dept. of History, UTEP, El Paso, TX 79968)
Historic El Paso:
The Shaping of a Bicultural Community

The researcher plans a book-length manuscript on the history of the El Paso area from the 16th century to the present, a work which will analyze the region's two cultural traditions — that of the Spanish-Mexican North and a new heritage of the American Southwest, which emerged after 1848 when the Rio Grande became an international boundary. Mexican local and regional archival materials will serve as sources for the Spanish-Mexican period, while government documents, state archival materials, personal accounts and correspondence, and newspapers will provide data for the American period.

Begun Sept. 1978. EDC Jan. 1985. Publications: "The El Paso Area in the Mexican Period, 1821-1848," *Southwestern Historical Quarterly* 84:1 (July 1980):1-28; "American El Paso: The Formative Years, 1848-1854," *Southwestern Historical Quarterly*, 87:1 (July 1983):1-36.

509. María Ramona Valdez Cota (CEFNOMEX, Abelardo Rodríguez 21, Zona del Río, Tijuana, B.C.N. 22320)
The Impact of Recent Peso Devaluations on the *Maquila* Industries of Baja California

This study attempted to determine the effects on assembly plants in Baja California of the 1976 and 1982 peso devaluations and of Mexico's monetary policies during the period between devaluations. A second topic addressed was how the establishment of this industrial sector influenced development in the state. The researcher used municipal statistics collected by the Ministries of Commerce and Industrial Development from 1966 to 1983 to determine the number of assembly plants and their distribution by city and by activity; the size of the *maquila* labor force and their salary levels; the value of national and imported raw materials; value added in the sector; gross value of *maquila* production; dollar-peso parity rates; and inflation rates. The study used a multiple regression analysis of these data to test whether comparative advantages in Mexico, and especially Baja California, translate into an increase of *maquiladoras* along Mexico's northern border.

Begun Nov. 1983. Completed 1984.

510. ‡Barbara G. Valk, Ana María Cobos (Latin American Center, 10349 Bunche Hall, UCLA, Los Angeles, CA 90024)
BorderLine

This project, developed in association with the UCLA Library and the San Diego State University Library, is an on-line bibliographic database of border-related library materials, in all fields, published or prepared since 1960. The database contains items in English, Spanish, and other languages and includes monographs, documents, unpublished works, serial titles, and journal articles. It will be expanded to include maps and other types of sources and is searchable on- and off-line by author, title, subject, series, or classification number. Classified lists of citations are available for purchase upon request. An expanded consortium of universities and research centers now contribute citations to the database on a regular basis in exchange for on-line access to the file. Consortium members include, in addition to UCLA and San Diego State University, SDSU's Imperial Valley Campus, UABC, Stanford University, CEFNOMEX, El Colegio de México, the University of Arizona, Arizona State University, the University of New Mexico, and the Austin and El Paso campuses of the University of Texas.

Begun June 1981. Ongoing. NEH/UCLA Office of Academic Computing.

511. Jaime Vélez Storey (CEFNOMEX, Abelardo Rodríguez 21, Zona del Río, Tijuana, B.C.N. 22320)
A Search for Historical Documents about Mexico's Northern Border

Mexico's National Archives (the AGN) contain a wealth of documents about the history of U.S.-Mexico border relations. The researcher plans to locate, inventory, and develop an annotated list of AGN sources dealing with this topic from 1848 to the present.

Begun Jan. 1984. EDC indefinite. CEFNOMEX.

512. Hartmut Walter (Dept. of Geography, 1255 Bunche Hall, UCLA, Los Angeles, CA 90024)
Environmental Problems and Policies in the U.S.-Mexican Borderlands

The U.S.-Mexican border is one of the most interesting borders on earth; a point of direct contact between the North and the South of the world, this border has witnessed numerous environmental conflict situations. Changing economic and political fortunes on both sides of this border will continue to affect the health and stability of water, soil, air, and biotic environments. This researcher plans to monitor and analyze past and present environmental problems and the accompanying policies of both countries, and he hopes to arrive at some general rules and guidelines for future problem-solving and policymaking in environmental border conflicts at this and other international borders.

To begin Jan. 1985. EDC indefinite. UCLA.

513. ‡Mel Webber, Victor Jones, Tim Campbell (Institute of Urban and Regional Development, 316 Wurster Hall, UCB, Berkeley, CA 94720)
Transborder Metropolitan Planning

The Institute of Urban and Regional Development at UC-Berkeley and CEFNOMEX are jointly proposing this project to diagnose urban border problems and to identify means for strengthening institutional capacities on both sides of the border to cope with the complexities of binational metropolises. The researchers intend to combine the computerized geographical information system already being developed at CEFNOMEX with counterpart skills at Berkeley, in order to analyze alternative growth scenarios.

Begun 1984. EDC 1985.

514. ‡Scott Whiteford (Dept. of Anthropology, Michigan State Univ., East Lansing, MI 48824), Laura Montgomery (Dept. of Sociology, Wheaton College, Wheaton, IL 60187)

Agrarian Transformation

This research examines the political economy of agrarian transformation at four levels: it links international processes to national structures and policies and relates these in turn to regional socioeconomic organization and agrarian households. The study examines the relationship between state penetration and internationalization of capital; transnational corporations; the emergence of agroindustrial cooperatives; and the organization of regional agrarian organizations as a basis of political power and social control. The researchers focus on how political, economic, and social forces are linked and how they play out at different levels. Carried out in the Mexicali Valley, the study includes archival research, an in-depth survey of agricultural producers and laborers, and detailed, systematic interviews with key government, union, cooperative, and civic leaders.

Begun Sept. 1982. EDC Jan. 1985. Center for U.S.-Mexican Studies, UCSD/Fulbright Foundation/Mellon Foundation/Mexico-U.S. Border Program, UT-Austin/Center for Advanced Study in International Development. Publications: "Political Economy and Regional Analysis," in *Macro-Micro Analysis in Anthropology,* eds. Billie Dewalt and Perlie Pelto (Boulder, Colo.: Westview Press, forthcoming); S. Whiteford, "Linkage, Structure, and Process: The Mexicali Case," in *Regional Impacts of U.S.-Mexico Integration,* ed. Ina Rosenthal-Urey, Center for U.S.-Mexican Studies Monograph Series, 16 (La Jolla, Calif.: UCSD, forthcoming).

515. Lothar Witte (Dept. of Developmental Psychology, Institut fuer Soziologie, Free Univ. of Berlin, Babelsberger Str. 14-16, 1000 Berlin 31, Federal Republic of Germany)

Migration and Social Structure in Tijuana

In order to liberate the history of Mexican migration from the "bracero-lore" still surrounding it, this project will explore how changes in the development process of the United States and Mexico during the 1970s and 1980s have affected the migration process. The study focuses on the labor market as a basis for analyzing the social structure of migration and takes the resident population of Tijuana as a case study. The migrants' socioeconomic background, the initial absorption of their labor power upon arrival, and their situation at the time of the study will be examined through interviews on migration history as well as analysis of existing data and secondary sources.

Begun Nov. 1983. Ongoing. Carl Duisberg Gesellschaft, Free Univ. of Berlin.

IV

CHICANO STUDIES

516. ‡Terry W. Allen, ‡Adolfo J. Alvarez (Dept. of Psychology, UTEP, El Paso, TX 79968)
A Comparison of the Classroom Behavior of Mexican, Mexican-American, and Anglo-American Children

This project will develop a Spanish-language version of a teacher's rating scale of children's classroom behavior. Designed for use in Mexico, the scale will identify children with attention deficit disorders (ADD) and other developmental disturbances. The study will also determine whether the Spanish-language instrument can be used to discriminate between Mexican children placed in a rehabilitation program and those considered normal. The current project compares differences in teachers' ratings of the classroom behavior of normal Mexican nationals, Mexican-Americans, and Anglo-Americans. Preliminary results indicate that the Spanish-language instrument helped identify children with ADD, correctly distinguishing in every case between normal children and those in rehabilitation classes. The study also rated Mexican-American children as having better attention and social skills than Anglo-Americans and Mexican nationals. Future studies will address mental health and acculturation issues.

Begun Apr. 1982. Ongoing.

517. A. Rolando Andrade (Dept. of Ethnic Studies, Bowling Green State Univ., Bowling Green, OH 43403)
Development in Mexican Cultures

The differences between the Anglo and Mexican way of thinking and living have created myths, stereotypes, and erroneous views which must be corrected in order to achieve changes in U.S. policy toward Mexico, an end to second-class citizenship for Mexican-Americans, and self-pride within the Chicano community. This research attempts to provide a means through which Anglos can better understand Mexican culture and Mexican-Americans can learn about and better appreciate their own heritage; it also strives to give a balanced view of social thought and history in relation to Mexican culture. The researcher has reviewed materials written about Mexican culture and has administered questionnaires to scientifically selected Mexicans for contrast and/or verification of concepts.

Begun 1981. Ongoing. Dept. of Ethnic Studies, Bowling Green State Univ.

518. Daniel D. Arreola (Dept. of Geography, Texas A&M Univ., College Station, TX 77843)
House Color in Mexican-American Barrios

This project examines relationships among patterns of house color in Mexican-American neighborhoods, residents' explanations for neighborhood preferences regarding house color, and length of residence in the neighborhood. The researcher has conducted field mapping and resident interviews in Brownsville, Texas; he hypothesizes that those who paint their houses bright colors are likely to be recent immigrants from Mexico and that the practice of painting houses in this manner reinforces a community identity. Such a demonstration would provide physical evidence of persistent cultural practices in a new geographic setting and would contribute to a measure for identifying recent Mexican immigrants in urban populations.

Begun Mar. 1984. Completed 1984. College of Geosciences, Texas A&M Univ.

519. ‡Frank D. Bean (Dept. of Sociology, 436 Burdine Hall, UT-Austin, Austin, TX 78712), Ruth M. Cullen (Population Research Center, Main Bldg. 1800, UT-Austin, Austin, TX 78712)
Fertility Patterns in the U.S. Population of Mexican Origin

This research will analyze data from the Census Public Use Samples (CPS) matched file of March-April-June 1983, together with data from the 1970 CPS, to investigate the relationships between generational status and fertility and between female education and fertility within generational groups among Mexican-origin people in the United States. The objectives and specific aims of the project include the following: to ascertain patterns of variation in fertility among Mexican immigrants and the descendants of Mexican immigrants (by generational status) in 1983; to determine how this pattern has changed since 1970; to estimate the effects on fertility of female education within the generational groups for each of the two years sampled; and to examine the patterns of educational effects on fertility by generational status, age cohort, and time period (1970 versus 1983) in order to ascertain whether a "differential opportunity costs" or a "minority group status" perspective provides the better basis for interpreting the education-fertility relationship.

Begun Sept. 1984. EDC Aug. 1986.

520. ‡Frank D. Bean (Dept. of Sociology, 436 Burdine Hall, UT-Austin, Austin, TX 78712), ‡Marta Tienda (Dept. of Rural Sociology, 340 AG Hall, Univ. of Wisconsin, Madison, WI 53706)
Hispanic Population of the United States

Using the 1980 U.S. Census and other data sources, this work will compile descriptive information on the demographic, social, and economic characteristics of Mexican, Cuban, Puerto Rican, and other Hispanic-origin populations. It will also assess patterns of interrelationship among these characteristics, depict the nature of differentiation among these groups, and evaluate their integration into the larger society. Where appropriate and possible, the researchers will also make comparisons with data from countries of origin, thereby providing a more meaningful international context for evaluating the nature of differentiation within and among groups of Hispanic origin.

Begun July 1982. EDC June 1985.

521. Albert Camarillo (SCCR, P.O. Box 9341, Stanford Univ., Stanford, CA 94305)
Stanford Study of the Schools

This longitudinal study focuses on the Mexican-American (Chicano) student population in the high schools of San Jose, California. In its broad conceptualization, this project focuses on past and future changes which have affected or may affect the external environment of schools, including demographic, fiscal, political, and ideological factors. The researcher has conducted a detailed study of one high school (San Jose High) and may undertake a second (of a school yet to be determined). The project involves district-, school-, and classroom-level study, in order to make clear how changes at the macro level (board of education or school district) impact the micro level (classrooms and individual students).

Begun 1981. Ongoing. Stanford Study of the Schools.

522. ‡Albert Camarillo, Renato Rosaldo (SCCR, P.O. Box 9341, Stanford Univ., Stanford, CA 94305)
Stanford University Mexican-American Informational Retrieval System

This project has created an on-line bibliographic retrieval system for urban and anthropological studies which focus on Mexican-Americans. It produced a publishable bibliographic index for these subject areas and has improved library and information services for students, scholars, and the general public interested in Mexican-American experiences.

Begun Oct. 1983. Completed 1984.

523. Gilberto Cárdenas (Dept. of Sociology, UT-Austin, Austin, TX 78712)
Pan-nationalist Ideology in Chicano-*Mexicano* Relations

This study of pan-nationalist ideology in Chicano-*mexicano* relations examines various ideological orientations espoused by proponents of Chicano-*mexicano* linkages. These ideologies range from working-class internationalism to capitalist economic internationalism to cultural nationalism.

Begun Sept. 1983. Ongoing.

524. Lawrence A. Cardoso (Dept. of History, Univ. of Wyoming, Laramie, WY 82071)
White and Brown: Anglo-American Images of the Mexican and Mexican American

This project examines a wide variety of primary sources — such as diaries, newspapers, government reports, unpublished letters, and published books — dating from the mid-sixteenth century to the 1980s. It will explain the origins and development of the Anglo-American image of Mexicans and Mexican Americans from the Elizabethan period to our times. One major aim is to understand the contemporary situation of Hispanics in the United States, as well as the poor diplomatic relations between the U.S. and Mexico. The study's tentative conclusions include the following: Until the early nineteenth century, because of a variety of religious, political, and economic goals, North Americans believed that Mexicans were a worthy people, fully capable of joining their neighbors in a Christian, democratic way of life. Certain historical developments, among them Texas's independence, the War of 1846-1848, and other factors, brought into play a near-monolithic set of racially-tinted negative attitudes. These stereotypes have remained the bedrock of Anglo-American values and culture into this decade, despite the pervasive sentiment since the 1930s among government and progressive elites that such attitudes are bad for this country.

Begun 1981. EDC 1985. Univ. of Wyoming.

525. ‡María L. Chávez, James P. Loucky (Dept. of Anthropology, UCLA, Los Angeles, CA 90024)
Female Employment and Changing Child Socialization in Mexican Families

Despite a persistent ideology emphasizing male superiority and dominance, Mexican women are becoming increasingly empowered through wage labor. Through ethnographic research with families along the California-Mexico border, the investigators are exploring the significant implications of maternal employment for socialization of children. Methods include systematic interviews, observations, and time-allocation records with mothers and children.

Begun Sept. 1984. Ongoing. CSRC, UCLA.

526. Kathee M. Christensen (Dept. of Communicative Disorders, SDSU, San Diego, CA 92182)
A Mass-Media Approach to Sign Language Instruction for Spanish-speaking Parents of Deaf Children

Prior to the beginning of this project, a pretest of a target population of 50 monolingual Spanish-speaking families with one or more deaf children indicated little or no knowledge of sign language. After watching a weekly 30-minute television program which presented sign-language instruction in a trilingual format (that is, with Spanish and English translations), the subjects were given receptive and expressive sign tests. Administered at 15-week intervals over a period of two years, the tests showed that subjects who watched 8 or more programs per 15-week period made statistically significant progress in sign-language acquisition.

Begun Sept. 1980. Ongoing. U.S. Office of Education/Bureau of Education of the Handicapped.

527. Carlos E. Cortés (Dept. of History, UCR, Riverside, CA 92521)
History of the Mexican-American Press

This history of the Mexican-American print media from 1848 to the present involves content analysis of selected Mexican-American newspapers, magazines, and journals, as well as an examination of the secondary literature on the Mexican-American press.

Begun Mar. 1983. Completed 1984. UCR.

528. Carlos E. Cortés (Dept. of History, UCR, Riverside, CA 92521)
Ethnic Imagery in U.S. Motion Pictures: Latinos and Indians

This history of the depiction in U.S. feature films of Latinos (both in the United States and in Latin America) and Indians involves the content analysis of selected films, as well as a survey of relevant scholarly literature on film and other mass media.

Begun Mar. 1984. EDC Jan. 1985. UCR. Publication: "Ethnic Imagery in U.S. Motion Pictures: Latinos and Indians," Study of the Americas Colloquium Series (Boulder: Univ. of Colorado, forthcoming).

529. ‡Rodolfo de la Garza (Center for Mexican American Studies, Student Services Bldg. 4.120, UT-Austin, Austin, TX 78712), ‡Jerry Polinard, ‡Robert Wrinkle (Dept. of Political Science, Pan American Univ., Edinburg, TX 78539)
Mexican-American Attitudes toward Undocumented Workers: Assessing the Effects of Class, Culture, Generation, and Geography

This study compares the views regarding Mexican immigration of the residents in a south Texas county with those of residents in a central Texas county. The project attempts to measure the effects of ethnicity, cultural affinity, nativity (generation), class, and distance from the border on attitudes toward Mexican immigration. The researchers surveyed randomly selected samples of Travis County and Hidalgo County residents.

Begun June 1984. Completed 1984.

530. ‡Rodolfo de la Garza, ‡Janet Weaver (Center for Mexican American Studies, Student Services Bldg. 4.120, UT-Austin, Austin, TX 78712)
The Mexican-American Electorate

This analysis of Mexican-American political attitudes and behavior is based on local surveys conducted in San Antonio, Los Angeles, and Phoenix, and on statewide surveys in Texas, California, New Mexico, and Colorado.

Begun Jan. 1983. EDC indefinite.

531. Steven L. Driever (Dept. of Geosciences, Univ. of Missouri-Kansas City, 5100 Rockhill Rd., Kansas City, MO 64110)
The United States Hispanic Business Community and International Trade

More than 200,000 Hispanic businesses are located throughout the United States. Although the vast majority are small, these businesses should be an important factor in trade between Latin America and the U.S. This study examines how the United States Hispanic Chamber of Commerce (USHCC) fosters increased trade between its members and Latin American countries, especially Mexico, focusing on seven approaches undertaken by the organization during the last several years. Data sources include interviews with officials at USHCC headquarters in Kansas City, USHCC documents, current periodicals on businesses, and surveys conducted by the Bureau of the Census.

Begun May 1984. Ongoing. Publication: "The United States Hispanic Business Community and International Trade," in *Summary Papers of the Conference of Latin Americanist Geographers*, 1984, pp. 18-20.

532. ‡Francisco Garcia Ayvens (Chicano Studies Library, UCB, 3404 Dwinelle, Berkeley, CA 94720), Richard F. Chabrán (Chicano Studies Research Library, 3121 Campbell Hall, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024)
Chicano Periodical Index Project

This comprehensive index covers all current serials already identified as the most important sources on Chicanos and selectively indexes relevant articles published in mainstream or non-Chicano journals and magazines. The work's primary arrangement is by subject, and it includes supplementary author and title indexes. Descriptions for the index are derived from the *Chicano Thesaurus for Indexing Chicano Materials*.

Begun 1983. Completed 1984. Chicano Studies Library, UCB. Publication: *Chicano Periodical Index: 1982-1983* (Berkeley: Chicano Studies Library Publications, forthcoming).

533. Carlos B. Gil (Dept. of History, DP-20, Univ. of Washington, Seattle, WA 98195)
The Life and Times of Lydia Mendoza: Balladeer of the U.S.-Mexican Border

The researcher plans to produce a bilingual, illustrated narration of Lydia Mendoza's slow and arduous climb to fame in the 1940s as the first and most prominent Mexican-American musical artist to hail from the Texas-Mexico border region. Drawing from an earlier publication by the author, additional oral history materials already compiled, and relevant archival data from the Mexican-American Houston Metropolitan Research Center, this work will finally give attention to a field in which Mexican-Americans have contributed greatly. Lydia Mendoza is known among older Spanish-speaking people from Canada to Colombia, and she continues to play and sing on stage and in recording studios.

Begun June 1981. EDC June 1985. Washington Commission for the Humanities/Institute for Ethnic Studies in the U.S., Univ. of Washington. Publications: "Lydia Mendoza: Houstonian and First Lady of Mexican American Song," *The Houston Review* 3 (1981); "The Life and Times of Lydia Mendoza: Balladeer of the U.S.-Mexican Border," forthcoming.

534. ‡Willard Gingerich, ‡Maureen Potts (Dept. of English, UTEP, El Paso, TX 79968)
Teaching English to Interlingual College Freshmen

Despite the presence of an extensive literature on bilingual education at the primary and secondary levels, very little is known about the condition of bilingual/interlingual freshmen who are usually the majority in "developmental" English composition classes at colleges and universities along the U.S.-Mexican border. This project will proceed through four stages in pursuit of answers to the following questions: What are the dimensions of literacy problems for bilingual students on the UTEP campus? (The researchers have gathered and analyzed data about this question — i.e., how many fail English classes and how often — for six consecutive semesters from spring 1979 to fall 1981.) What can be learned from the current literature on sociolinguistics, bilingualism, rhetoric, and composition theory with respect to efficient and material causes and appropriate classroom responses? (An extensive resource file and corresponding bibliography, "Research in Bilingualism and Composition Relative to Hispanic College Freshmen," has been assembled in the UTEP English Professional Library.) What pedagogical strategies actually work in motivating efficient mastery of college-level literacy in English and how well do they work? What are the cultural dimensions and implications involved, *ipso facto*, in the teaching of literacy in the border region?

Begun July 1982. Ongoing. Dept. of English and Office of the Vice President for Academic Affairs, Instructional Improvement Fund, UTEP. Publications: "The Performance of Hispanic Students at the University of Texas at El Paso in Basic Writing Courses," Border Issues and Public

Policy Papers, no. 11 (El Paso: Center for Inter-American and Border Studies, UTEP, Sept. 1984); "The Hispanic American in English Composition Classes," in *The Role of Non-Standard Dialect in Bilingual Education*, ed. D. Bixler-Márquez, forthcoming.

535. Shifra M. Goldman (Dept. of Art, Santa Ana College, Santa Ana, CA 92706)

A Public Voice: Fifteen Years of Chicano Posters

The Chicano poster movement, which arose toward the end of the 1960s, paralleled street muralism as a public artistic expression and flourished until 1975 as a noncommercial, community-oriented art movement. After 1975, in response to changing perceptions of the role of Chicanos in the United States, Chicano poster art took two directions: a still-community-oriented one which entered into closer alignment with Third World liberation struggles; and another which moved toward the private art market and its values. The largest and most sophisticated Chicano poster movement has flourished in California, particularly in the San Francisco Bay area and Sacramento, areas long noted for high-quality political graphics. Numerous alternative art production and distribution organizations have arisen, and outstanding poster artists from California, Texas, and Chicago have achieved national and international recognition.

Begun 1983. Completed 1984. Publication: "A Public Voice: Fifteen Years of Chicano Posters," *Art Journal* 44:1 (spring 1984):50-57.

536. ‡James B. Greenberg, ‡Carlos G. Vélez-Ibáñez (Bureau of Applied Research in Anthropology, Univ. of Arizona, Tucson, AZ 85721)

The Multidimensional Functions of Non-market Forms of Exchange among Mexicans/Chicanos in Tucson, Arizona

This study will examine the contribution of reciprocity and redistribution in the material provisioning of Mexican/Chicano households in Tucson. It will also investigate the manner in which these mechanisms contribute to the organization of relations within and between classes among Mexicans/Chicanos and the importance of such non-market forms of exchange to the maintenance and expansion of Mexican ethnic identity and intra-ethnic relations. The researchers hypothesize that, among working class households, non-market exchange functions primarily to provide goods and services that households could not otherwise afford; that within middle- and upper-class households, such exchange forms will be used primarily as mechanisms for gaining access to resources and privilege in formal institutions; that class differences between associated households will be expressed relationally by "rituals of marginality"; and that the artifact of ethnicity derives more from participation in these relations than from maintenance of language, ethnic consciousness, identity, or symbolic preferences. While the research is primarily ethnographic in focus, formal sampling procedures will be used to select households.

To begin Jan. 1985. EDC June 1986. NSF. Publication: C. Vélez-Ibáñez, J. Greenberg, and B. Johnstone, "The Ethnic, Economic, and Educational Structure of Tucson," in *Proceedings of the Rocky Mountain Council of Latin American Studies*, 1984.

537. David G. Gutiérrez (Dept. of History, Bldg. 200, Stanford Univ., Stanford, CA 94306)
Ethnicity, Ideology, and Political Development: Mexican Immigration as a Political Issue in the Chicano Community, 1930-1977

This examination of the emergence of Mexican immigration as a political issue in the Chicano community during the present century focuses on the impact of Mexican immigration on the Mexican-American population and on the effects of continued immigration on Mexican-American participation in American politics. The researcher gives particular attention to the historical positions on the immigration issue of Mexican-American political and social organizations in California, Arizona, and Texas.

Begun June 1983. EDC Sept. 1985. Stanford Univ.

538. Mary L. Haas (Dept. of History, UCI, Irvine, CA 92717)
Immigration, Urban Structure, and Social Conflict in Santa Ana, California, 1960-1984

Santa Ana became one of the primary receiving areas for Mexican immigrants to the Southwest during the 1960s, a decade after losing its status as the urban center of Orange County. The project studies four aspects of this urban reorganization: the formation of immigrant neighborhoods; the relationship of the immigrant neighborhoods of Santa Ana to the pattern of residential, commercial, and industrial growth within the city and county; the politics of city government and the redevelopment agency which has sought, since 1964, to remove the immigrant neighborhoods and some of the older barrios of the city; finally, the struggle against redevelopment, led by the Santa Ana Neighborhood Organization (SANO), which has organized the older barrios of the city, as well as recent immigrants and their neighborhoods. The study draws from oral history interviews and archival material, supplementing these data with quantitative analysis.

Begun Nov. 1984. EDC Sept. 1985. UCI Mexico-Chicano Grant. Publication: "The Barrios of Santa Ana: A Study in Class, Ethnicity and Urban Structure" (Ph.D. diss., Univ. of California, Irvine, 1984).

539. Michael Heisley (Center for the Study of Comparative Folklore, 1037 GSM, Library Wing, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024)
Mexican-American Folklore: An Annotated Bibliography

This reference work will include published works and unpublished theses and dissertations. Organized into chapters according to genre (e.g., traditional narratives, songs, drama), it will also include a chapter listing selected works on Mexican folklore.

Begun Oct. 1984. Ongoing. Publication: *Mexican-American Folklore: An Annotated Bibliography* (New York: Garland Publishers, forthcoming).

540. Michael Heisley (Center for the Study of Comparative Folklore, 1037 GSM, Library Wing, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024)
The Charles F. Lummis Collection of California-Mexican Folk Songs

This project will help make available to the public the extensive collection of California-Mexican songs at the Southwest Museum in Los Angeles. The researcher plans to produce a record album with program notes of selections from this largely non-narrative collection of 340 wax cylinder recordings. Originally recorded by Charles F. Lummis between 1904 and 1912, this collection represents possibly the earliest sound recordings of Hispanic folk songs made in the U.S. This research will also examine the origins and social functions of these songs in California-Mexican society.

Begun Oct. 1984. EDC Mar. 1985. NEA. Publication: *The Charles F. Lummis Collection of California-Mexican Folksongs,* 12" record album with bilingual program notes (Los Angeles: Southwest Museum, forthcoming).

541. María Herrera-Sobek (Dept. of Spanish and Portuguese, UCI, Irvine, CA 92717)
Beyond Stereotypes: Analytical Studies on the Prose, Poetry, and Film Images of Chicanas

This collection of analyses of images in Chicana literature is divided into separate sections on prose and poetry. The section analyzing prose works includes: "Chicana Novelists in the Process of Creating Fictive Voices" (by Francisco Lomelí, UCSB); "Chicana Prose Writers: The Case of Gina Valdés and Sylvia Lizárraga" (by Rosaura Sánchez, UCSD); "The Female Hero in Chicano Literature" (by Carmen Salazar Parr, Los Angeles Valley College, and Genevieve M. Ramírez, CSU-Long Beach); and "Personal Vision in the Short Stories of Estela Portillo Trambley" (by Eliud Martínez, UCR). The articles analyzing poetry include "Walking the Thin Line: Humor in Chicana Literature" (by Tey Diana Rebolledo, Univ. of Nevada-Reno), and "The Birthing of the Poetic 'I' in Alma Villanueva's *Mother May I?*: The Search for a Feminine Identity" (by Marta Sánchez, UCSD).

Begun May 1982. Completed 1984. Ethnic Studies Fund, UCI/Women's Resource Center, UCI/ Chicano-Latino Colloquium, UCI. Publication: *Beyond Stereotypes: The Critical Analysis of Chicana Literature* (New York: Bilingual Review Press, forthcoming).

542. ‡Bette Ide, ‡Janice J. Monk (Southwest Institute for Research on Women, 265 Modern Languages Bldg., Univ. of Arizona, Tucson, AZ 85721)

Coping and Health among Older Urban Widows

This cross-cultural study will investigate how widows cope with their problems (with widowhood itself and with strains and changes in the realms of family, work, personality, and finances) and with how successful coping is related to perceived health. The research will take the form of an in-depth, longitudinal study of older, low-income, urban widows of three ethnic groups — Mexican American, American Indian, and Anglo — in Tuscon, Arizona. The study will focus on those with low incomes whose health and well-being are especially vulnerable and will follow the women through the first two years of widowhood to understand their processes of adjustment. Because it will involve three ethnic groups, the study will be able to identify those elements of coping specific to particular ethnic groups and those which are transcultural. A sample of 30-60 widows in each ethnic group will be interviewed three times during the first two years of widowhood. The interviews will combine open-ended and structured measures to permit both quantitative and qualitative analysis across the entire sample and for each ethnic group.

Begun Apr. 1984. EDC Mar. 1987. NIH.

543. Luis Leal (Center for Chicano Studies, UCSB, Santa Barbara, CA 93106)

A Literary History of Hispanic California

This book-length study examines the contributions of the Hispanic (Mexican) people to the literary history of California.

Begun Sept. 1984. EDC Mar. 1986. Center for Chicano Studies, UCSB. Publication: "Gabino Barreda y la literatura: de la preparatoria al ateneo," *Aztlán* 14:2 (fall 1983):253-265.

544. Karen Leonard (School of Social Sciences, UCI, Irvine, CA 92717)

Mexican-Hindus in California, 1915-1980

This study of ethnicity in mixed marriages over several generations in rural California examines families formed by immigrant men from India and Hispanic women from the southwestern United States and Mexico. Research questions focus on cultural transmission, access to and transmission of economic resources, and the crucial role of women in the formation of kinship and other social networks in this "Mexican-Hindu" community. Interviews with descendants throughout rural California supplement documentation of family reconstitution from fifteen county record offices (vital statistics, civil, and criminal records).

Begun 1980. EDC 1985. Publications: "Marriage and Family Life Among Early Asian Indian Immigrants," *Population Review* 25:1-2 (1982):67-75; "Mexican-Hindus and Asian Indians: Old and New in Orange County," in *Second Lives: The Contemporary Immigrant/Refugee Experience in Orange County*, eds. Michael Dixon and Valerie Smith (Costa Mesa, Calif.: South Coast Reperatory Theatre, 1983); K. Leonard and B. LaBrack, "Conflict and Compatibility in Punjabi-Mexican Immigrant Families in Rural California: 1915-1965," *Journal of Marriage and the Family* 46:3 (Aug. 1984).

545. José E. Limón (Dept. of Anthropology, Burdine Hall 336, UT-Austin, Austin, TX 78712)
Language, Immigration, and Popular Pedagogy among Mexicans in Texas

This ethnographic work among undocumented Mexican workers in Texas focuses on socially situated language behavior. The researcher is particularly interested in language interaction between Mexicans and Mexican-Americans and has been ethnographically testing the hypothesis that Mexican-Americans engage in a folk pedagogy with the undocumented, teaching them English language skills along with other cultural knowledge.

Begun Sept. 1982. Ongoing. UT-Austin. Publication: "Language, Mexican Immigration, and the Human Connection: A Perspective from the Ethnography of Communication," in *Mexican Immigrants and the Mexican-American Community: An Evolving Relationship*, eds. R. de la Garza and H. Browning (Austin: Univ. of Texas Press, forthcoming).

546. Francisco A. Lomelí (Dept. of Chicano Studies, UCSB, Santa Barbara, CA 93106)
Origins of Hispanic Narrative in New Mexico and Colorado

This project explores the factors which contributed to the creation of Hispanic narrative in New Mexico and Colorado as it identifies and analyzes some of the earlier works. This analysis will hopefully contribute to a better concept of Hispanic narrative with respect to the narrative types, their volume, and their literary quality. The long-run objective of the work is to document enough sources to serve as a basis for recording the literary history of this region at different stages of development. The data sources include 19th-century newspapers and personal and public libraries and archives.

Begun Feb. 1984. Ongoing. Center for Chicano Studies, UCSB.

547. Patricia Lee MacCorquodale (Dept. of Sociology, Univ. of Arizona, Tucson, AZ 85721)
The Family: Gender and Ethnic Identities

This monographic study reporting the results of a research project in southern Arizona will include sections on family structure, family roles and identities, the division of labor, and how this division of labor is related to sex-role attitudes. Using parent interviews and student questionnaires, the study compares the sex-role attitudes of parents with those of children in order to develop a conceptualization of the family as the unit of analysis for studying the process of socialization. Part of this analysis involves examining data from 344 sets of siblings and three-year longitudinal data on 700 students.

Begun 1983. Ongoing. Publications: "Sex Roles, the Family and Ethnicity" (Paper read at the Society for the Study of Social Problems Meetings); "The Effect of the Familial Division of Labor on Sex Role Attitudes" (Paper read at the Meeting of the Western Social Science Association, 1983); "Parental Influence on the Sex Role Attitudes of Anglo and Mexican-American Adolescents," forthcoming.

548. María Eugenia Matute-Bianchi (Dept. of Teacher Education, Kerr Hall 317, UCSC, Santa Cruz, CA 95064)
Variability in School Performance among Chicano, Mexican, and Japanese-American Youth

Ethnographic studies of Chicano and Mexican students who perform well in school are rare. Moreover, researchers have yet to compare the educational performances of students of Mexican descent with those of other minorities, for example, Japanese-Americans, who have an image of being a "model" minority. The fieldwork for this study, conducted in a central California suburban-agricultural community, identifies factors which differentiate successful from unsuccessful Chicano, Mexican, and Japanese-American students. Utilizing a cultural-ecological framework, the study shows that these differences result from differing perceptions of the value of schooling in attaining adult success.

Begun Sept. 1983. Ongoing. UCSC.

549. Matt S. Meier (Dept. of History, Univ. of Santa Clara, Santa Clara, CA 95125)
Dictionary of Mexican-American Biography

A comprehensive dictionary of 250-300 biographies of Mexican Americans spanning two centuries, this work emphasizes the lives of the more important figures and includes one or more bibliographic references for each entry. Approximately half the entries will cover contemporary Mexican Americans: César Chávez, Joan Báez, Congressman Henry Gonzáles, Anthony Quinn, Jim Plunkett, etc. Biographees will be selected on the basis of national reputation and role in Mexican-American history from the fields of politics, education, the arts, sports, and others. In addition to a general index, the book will include indexes by fields of activity and by states.

Begun June 1983. EDC Jan. 1987.

550. Carlos Morton (Drama Dept., UT-Austin, Austin, TX 78712)

Critical Response to *Zoot Suit* and *Corridos*

In comparing the critical response to two of Luis Valdez's latest plays, *Zoot Suit* and *Corridos*, the researcher found that the critics' responses depended upon the form and content of the play, and whether the reviewers were Anglo or Chicano. To a lesser extent response varied according to the part of the country where the play was presented. On the whole, Chicano critics were more concerned with the content of the play, while Anglo reviewers tended to judge the play more by its form. Chicano reviewers preferred *Zoot Suit* because of its political statement, while Anglo critics seemed infatuated with *Corridos* because of its ethnicity. Most of the Chicano critics surveyed condemned *Corridos* because it failed to make a political statement and because it was "folkloric" in content.

Begun 1981. Completed 1984. Mina Shaughnessy Grant/U.S. Dept. of Education. Publication: "Critical Response to *Corridos* and *Zoot Suit*," Chicano Studies Occasional Paper Series, no. 2 (El Paso: Univ. of Texas at El Paso, forthcoming).

551. Diana Rebolledo (Dept. of Women's Studies, UNM, Albuquerque, NM 87131)

Tradition and Mythology:
Signatures of Landscape in Chicana Literature

This research deals with the Chicano (and Chicana) sense of landscape in the Southwest. Rather than seeing the region as Anglo writers do, as a virgin territory without traditions and roots, the Chicano has a sense of the Southwest as a place where families were not only tied to but nourished by the land. The Chicano has not looked for tradition to the eastern United States, with its large cities and materialistic concepts of progress, but south to Mexico and to the past when the land belonged to Mexico and exemplified a heritage and tradition now in conflict. In this undertaking, the researcher emphasizes the substantial body of work published in the last twelve years by Chicanas such as Raquel Elizondo, Raquel Rodríguez, Angela de Hoyos, and Lorna de Cervantes. Much of the material is self-published in chapbooks or collected in journals and other publications. One of the most important tasks of the study is the location of additional earlier writings and the compilation of loose works prior to analysis.

Begun Jan. 1983. Completed 1984. NEH.

552. Victor Ríos, Jr. (Dept. of Sociology, Univ. of Redlands, Redlands, CA 92373)

Geographical, Familial, and Generational Factors in the Assimilation or Nonassimilation of Chicanos

This project examines proximity to Mexico, cultural and familial ties to Mexico, and continuing immigration to the U.S. as variables which help to explain the nonassimilation of Chicanos. The research hypothesizes that proximity to homeland may be overemphasized as an explanatory variable for this phenomenon and that cultural and physical ties to Mexico may have only minor significance for some individuals and no significance at all for others. More plausible explanations of nonassimilation may come from examining the situation of Chicanos within the larger societal context. The investigator has conducted interviews in Texas and plans further interviews and the use of attitude scales in California and South Texas.

Begun July 1983. EDC Aug. 1985. Haynes Foundation Grant/Univ. of Redlands.

553. Raquel Rubio-Goldsmith (Social Science Dept., Pima Community College, 2202 W. Anklam Rd., Tucson, AZ 85709)

Religious Socialization and Its Changing Role in the Lives of *Mexicanas* and Chicanas on the Mexico-U.S. Border, 1900-1950

In their migration northward, *mexicanas* have found old and new religious paths. Oral histories indicate that for these women and their American-born daughters, religion has provided an important base for survival in the new country. *Mexicanas* and Chicanas have participated in traditional institutionalized Catholicism, in folk religious practices brought from Mexico, and as participants and leaders in the development of new alternative religious organizations. This study will identify, describe, and interpret these various religious roles, as well as chart the evolving importance of various religious practices in the lives of *mexicanas* and Chicanas on the Arizona-Sonora border.

Begun 1978. Ongoing.

554. Christine Marie Sierra (Dept. of Political Science, Colorado College, Colorado Springs, CO 80903)

Chicano Organizational Struggles at the National and Local Levels, 1960s-1980s

Centering on Chicano organizational struggles at the national and local levels, this research has thus far focused on national advocacy groups (such as the National Council of La Raza) and the roles they play vis-à-vis national political actors. Included in the work is an analysis of the Ford Foundation's intervention in minority group political movements from the 1960s to the 1980s. Further research will concentrate on selected U.S. presidential administrations and their (non)response to

Chicano/Mexican interests. Sources include personal interviews with Ford Foundation officials, leaders of Chicano organizations, and primary documentary materials from archival collections such as the Manuel Ruiz, Jr. and Ernesto Galarza collections at Stanford University.

Begun 1978. Ongoing. Colorado College Faculty and Development Block Grants. Publication: "Chicano Political Development: Historical Considerations," in *Chicano Studies: A Multi-Disciplinary Approach*, eds. E. García, F. Lomelí, and I. Ortiz (New York: Teachers College Press, Columbia Univ., 1984).

555. Marianne L. Stoller (Dept. of Anthropology, Colorado College, Colorado Springs, CO 80903)
Hispanic Women Artists of the Southwest

This study forms part of a project of the Southwest Institute for Research on Women, titled "Visions of Landscape: Women Writers and Artists in the Southwest, 1880-1980." The researcher has studied women's contributions to the visual and material arts in the northern part of the old Spanish and Mexican frontier area, i.e., Arizona and New Mexico, and compares the work of long-established Hispanic women in northern New Mexico with that of women of more recent Mexican-American origin near the present U.S.-Mexican border. Their arts include textiles, metalworking decoration, and more contemporary expressions in painting, drawing, and sculpture. The research focuses on the period 1880-1980; but of necessity it must reach back in time to demonstrate the persistence of certain patterns and skills in the division of labor, certain functional and structural contexts of the Hispanic social organization and economy in which these arts were created, and certain historical relationships between Hispanic and American Indian peoples that underlie the most fundamental orientations of these women to their biophysical and cultural landscapes.

Begun Jan. 1983. Completed 1984. NEH.

556. Armando Valdez (SCCR, P.O. Box 9341, Stanford Univ., Stanford, CA 94305)
Hispanic Bibliographic Data Files

This national Hispanic bibliographic survey identifies existing machine-readable data files on persons of Spanish origin in the U.S. through a comprehensive search encompassing college and university research centers, private research organizations, and federal, state, and regional government agencies; produces a bibliographic data directory indexed by subject and variable headings; and makes this directory of data resources accessible to the general social science research community. A valuable reference tool for social science research in the rapidly expanding field of research on Hispanics in the U.S., the directory is based on systematic canvassing of major research centers, organizations, and agencies to identify existing data sets; the researcher has also assessed these data files to determine their characteristics and available documentation. The project thus provides a means for avoiding wasteful duplication of existing data and facilitates data sharing and secondary analyses of existing data resources.

Begun Oct. 1983. Completed 1984. Rockefeller Foundation/SCCR.

557. Miriam J. Wells (Dept. of Applied Behavioral Sciences, UCD, Davis, CA 95616)
Cooperative Production, Ethnic Identity, and Agrarian Change in California

At the most general level, this project has been concerned with how systems of ethnic inequality emerge, persist, and change. The project has focused specifically on the factors influencing the success or failure of a series of cooperative farms. These farms, organized by individuals of Mexican origin who worked as farmworkers and sharecroppers in California during the 1970s and 1980s, are sponsored by the federal government as a means of combating rural poverty. The project will identify critical policy issues in the successful introduction, growth, and viable functioning of cooperative farms among economically marginal ethnic populations. It will explore the relationships among political, economic, and ethnic factors in the development of agricultural systems, and it will examine several specific issues. It will examine, for example, the impact of the external political superstructure on the cooperatives' internal dynamics and viability. It will also address the nature of and reasons for the impact of such projects on the quality of members' lives from participants' as well as sponsors' perspectives; assess the mechanisms for evaluating such projects; discuss the changing organization of California agriculture and the role of cooperatives and ethnic minorities in the U.S.-Mexico border region; and evaluate the role of Chicano family structure as a means of coping with environmental change.

Begun Dec. 1975. EDC Dec. 1988. UCD Faculty Research Grant/UCD College of Agricultural and Environmental Sciences. Publications: "Social Conflict, Commodity Constraints, and Labor Market Structure in Agriculture," *Comparative Studies in Society and History* 23:4 (1981); "Political Mediation and Agricultural Cooperation: Strawberry Farms in California," *Economic Development and Cultural Change* 30:2 (1982); "Brokerage, Dependency, and the Goals of Development," *American Ethnologist*, forthcoming.

558. Marjorie S. Zatz (Dept. of Justice Studies, Wilson Hall, Arizona State Univ., Tempe, AZ 85287)
Processing of Chicano Gang Members through the Justice System

This research examines the processing of Chicano youths, some of whom have been identified by social control agents as gang members, through the juvenile courts. The researcher assesses main and interaction effects of gang membership on court processing decisions, controlling for other explanatory variables. A dynamic modeling technique is used to mirror over time the processing of juveniles through the court system from arrest through final disposition and sentencing. The data set consists of 250 youths (including a control group of arrestees not identified as gang members) and 1200 arrests, following them from their earliest arrest through any later arrests until May 1983.

Begun May 1983. EDC Dec. 1984. Arizona State Univ. Publication: "Los Cholos: Justice Processing of Chicano Gang Members," submitted.

V

AGRICULTURAL AND FORESTRY SCIENCES

559. ‡Miguel A. Altieri (Division of Biological Control, UCB, Albany, CA 94706), Javier Trujillo (Dirección General de Sanidad Vegetal, SARH, Humantla, Tlax.)
Effects of Plant Diversity on the Insect Communities of Tlaxcala Corn Fields

This study, which has both ecological and sociological ramifications, is monitoring insect pests (mainly the *scarabeidae Macrodactylus* spp) and their associated natural enemies in corn fields with different levels of weed populations (i.e., with or without flowering weeds) and in fields with different boundaries (i.e., borders of alfalfa, beans, fruit trees, and weeds). The sampling survey has provided information on: the composition and abundance of weed species in the various fields and borders; dominant pest and beneficial insect fauna associated with principal weeds; and pest incidence and population levels of natural enemies in corn fields of varying degrees of plant diversity. By determining those plant assemblages that enhance natural pest control and allow for acceptable corn yields, this research provides a starting point for the improvement of traditional cropping systems with local resources, particularly for low-income farmers who have limited access to public services. This information is also applicable to developed countries, where researchers are looking for ways to reduce energy and resource inputs into food production systems.

Begun June 1982. EDC Oct. 1985. SARH/Center for Latin American Studies, UCB/UC MEXUS.

560. ‡Gastón Carlos Avila Suárez, Sara Ríos Dordello (CNIPF, INIF, Av. Progreso 5, Coyoacán, México, D.F. 04110)
Technology for the Drying of Lumber

This project will determine the drying characteristics of commercial and/or potentially exploitable timber and identify, test, and develop drying procedures and equipment to replace imported technology. In disseminating the study's findings, the researchers will encourage the adoption of the techniques developed, cooperate in training programs, and provide technical assistance in the design, construction, installation, operation, and maintenance of wood driers. The project involves a preliminary literature review.

Begun Jan. 1980. EDC indefinite. Mexican government. Publication: C. G. Avila Suárez, "Secado en estufa de la madera aserrada de 2.54 cm. de espesor de *Quercus acutifolia:* avances relevantes de la investigación forestal," mimeographed (México, D.F.: Instituto Nacional de Investigaciones Forestales, 1981).

561. ‡R. Bushnell (Veterinary Extension Service, UCD, Davis, CA 95616), ‡David W. Hird, ‡Hans P. Riemann (Dept. of Epidemiology and Preventive Medicine, School of Veterinary Medicine, UCD, Davis, CA 95616), ‡Héctor Torres (Escuela de Medicina Veterinaria y Zootecnia, UABC, Mexicali, B.C.N. 21180)

Study and Control of Mastitis among Dairy Cattle in Baja California

Mastitis in dairy cattle is one of the most severe diseases, in terms of economic losses, in livestock. This project will conduct a survey of the dairy cattle population in Baja California to determine the prevalence of clinical and subclinical mastitis, and to identify the microorganisms involved; it will initiate mastitis control programs on selected farms; and it will carry on an epidemiological study to identify causative factors in mastitis and to improve control procedures.

Begun Apr. 1983. EDC June 1986. UC MEXUS/UABC.

562. ‡Carmen De la Paz Pérez Olvera, Lilia Patricia Olvera Coronel (CNIPF, INIF, Av. Progreso 5, Coyoacán, México, D.F. 04110)

Anatomical Studies of Exploitable Lumber

This study will identify the microscopic and macroscopic anatomical characteristics of species of trees in Mexico which have current or potential economic importance. The researchers will then help identify types of lumber, suggest optimal uses for each type, encourage multiple uses of each, introduce new lumber types to the market, and substitute some types already commercialized. The study will include a bibliographic review in addition to the analyses.

Begun 1975. EDC indefinite. Mexican government. Publications: "Anatomía de la madera de 16 coníferas," *Boletín Técnico del Instituto Nacional de Investigaciones Forestales* 69 (1981); C. De la Paz Pérez Olvera, "Características anatómicas de cinco encinos de México," *Boletín Técnico del Instituto Nacional de Investigaciones Forestales* 46 (1976); C. De la Paz Pérez Olvera, T. Carmona Valdovinos, and A. Rogel Gómez, "Estudio anatómico de la madera de 43 especies tropicales," *Boletín Técnico del Instituto Nacional de Investigaciones Forestales* 63 (1980).

563. ‡Benjamín Figueroa Sandoval (CREZAS, El Colegio de Posgraduados, Iturbide 73, Salinas, S.L.P. 78600), ‡Arturo Lara López (Facultad de Ingeniería en Salamanca, Univ. de Guanajuato, A.P. 215, Suc. A, Salamanca, Gto. 36700)

Farm Implements for Small-scale Cultivation

This project involves the development of a set of cultivation implements for use with a small two-wheeled tractor developed in cooperation with researchers at the University of California, Davis. The tools will be designed for use in both conventional and mechanized farming, and the utility of each one in various soil and climatic conditions, including those of arid regions, will be determined through field testing.

Begun Jan. 1983. EDC Dec. 1985. SEP/CONACYT/Colegio de Posgraduados. Publications: A. Lara-López, W. J. Chancellor, R. A. Kepner, and M. S. Kaminaka, "A Two-Wheeled Tractor for Manufacture in México," *Transactions of the ASAE* 15:5 (1981):1189-1194, 1203; A. B. A. Gutiérrez and A. Lara López, "Adaptación de un remolque al motocultor, U. G. de alto despeje," in *Memorias del IX Congreso de la Academia Nacional de Ingeniería*, 1983, pp. 297-301; L. G. P. Lozano and A. Lara López, "Pruebas de escarda de un motocultor de alto despeje," in *Memorias del VII Congreso de la Academia Nacional de Ingeniería*, 1982, pp. 107-111.

564. ‡Elia Gatica Suárez, Raúl Muñiz Vélez (Dpto. de Protección Forestal, INIF, Av. Progreso 5, Coyoacán, México, D.F. 04110)

Incidence of Insects in Tree Nurseries in the Valley of Mexico

The present study seeks to detect and measure the incidence of insects in nursery trees and to correlate this to the circumstances accompanying each infestation. The researchers postulate that the presence of insect infestations can provoke both forestry and ecological problems if left undetected and untreated. Two weeks of inspection every two months, in addition to laboratory studies, should help alleviate the problem. The researchers are also consulting bibliographic sources within and outside of Mexico.

Begun Sept. 1982. EDC indefinite. SPP.

565. ‡María del Socorro Gómez-Nava, Luis Vázquez Silva (CNIPF, INIF, Av. Progreso 5, Coyoacán, México, D.F. 04110)

INIF's Collection of Mushroom Cultures

This collection of cultures of native and foreign mushrooms includes members of the Basidiomycolina subdivision, especially the wood-destroying Hymenomycetes: Zygomycotina (Zygomycetes), Ascomycotina (Pirenomycetes and Discomycetes), and Deuteromycotina (Hyphomycetes and Coelomycetes). The collection serves as a source of comparison in research efforts and teaching, as a coin of exchange with national and foreign institutions, and as the source of cultures for other academic centers. The collection includes 900 cultures, 3 or 4 of each species, cooled to 4°C. These are numerically catalogued and registered in a card file.

Begun 1961. EDC indefinite. Mexican government. Publication: M. Gómez-Nava and C. U. Contreras Pérez, *Catálogo de la colección de* *cultivos de hongos del Instituto Nacional de Investigaciones Forestales* (México, D.F.: Instituto Nacional de Investigaciones Forestales, 1981).

566. ‡María del Socorro Gómez-Nava, Luis Vázquez Silva (CNIPF, INIF, Av. Progreso 5, Coyoacán, México, D.F. 04110)
Natural Durability of Timber

This project is examining the natural durability of forest tree species in Mexico in the face of mushroom and insect infestations, especially those species which are economically or technologically important because of their distribution or abundance. The researchers hope to identify, by fieldwork and laboratory analyses, the specific properties which confer natural resistence on lumber. The project will also suggest optimum uses for each type of lumber; recommend, where advisable, the use of preservatives; and establish norms for quality control and inspection. The study also incorporates a literature review.

Begun 1968. EDC indefinite. Mexican government. Publications: M. S. Gómez-Nava, R. Echenique M., and R. Salinas Q., "Indices de laboratorio sobre resistencia de la madera a la pudrición en once especies forestales mexicanas," *Boletín Técnico del Instituto Nacional de Investigaciones Forestales* 31 (1969); R. J. Herrera, M. S. Gómez-Nava, and A. Herrera B., "Durabilidad natural de la madera de quince especies forestales mexicanas," *Boletín Técnica del Instituto Nacional de Investigaciones Forestales* 52 (1976); R. J. Herrera, M. S. Gómez-Nava, and E. Barretero G., "Durabilidad natural de la madera de catorce especies forestales mexicanas, Serie III," *Boletín Técnico del Instituto Nacional de Investigaciones Forestales* 67 (1980).

567. ‡María del Socorro Gómez-Nava, Luis Vázquez Silva (CNIPF, INIF, Av. Progreso 5, Coyoacán, México, D.F. 04110)
Biodeterioration in Timber

This study examines the taxonomical, physiological, ecological, and distribution characteristics of various microbes and insects which attack timber and wood products in order to determine the treatment methods best suited for pest control. The research identifies causal agents which attack lumber during processing, transport, storage, and use life. They will also identify the succession of microorganisms which cause deterioration in lumber-yielding trees in contact with soil or water, and under differing climatic conditions. Once these agents are identified, the researchers will note the specific types of deterioration caused by these microbes and their enzymatic action on cellulose and lignin. Based on these results, the researchers will determine the most effective inhibitors for use in treatment programs to guarantee the use life of various types of lumber-yielding trees. A bibliographic review complements the research.

Begun 1979. EDC indefinite. Mexican government. Publications: M. S. Gómez-Nava, "Un caso de biodeterioro de la madera en casas habitación" (Presentation at the seminar on Avances de la Investigación de Productos Maderables, Instituto Nacional de Investigaciones Forestales, Coyoacán, México, 1981); M. S. Gómez-Nava and C. U. Contreras Pérez, "Contribución al estudio de hongos aislados de muestras de madera en torres de enfriamiento" (Presentation at the seminar on Avances de la Investigación de Productos Maderables, Instituto Nacional de Investigaciones Forestales, Coyoacán, México, 1981).

568. ‡Miguel González Corona (Dpto. de Protección Forestal, CIFGO, Av. Independencia 166, Tuxtepec, Oax. 68000), ‡Marcela Verónica Gutiérrez Garduño, ‡Salvador Juárez Osorio, ‡Bertha Ruiz Altamirano (Dpto. de Protección Forestal, INIF, Av. Progreso 5, Coyoacán, México, D.F. 04110)
Flora in Santa María Jacatepec, Oaxaca

This project seeks to identify the flora of the La Joya parcel in the small Oaxacan community of Santa María Jacatepec. The researchers will prepare a guidebook for species identification, basing their research on fieldwork such as the collection and identification of species, a review of herbariums, and the elaboration of identification keys.

Begun Jan. 1984. EDC May 1985. SPP

569. ‡Francisco Gurria Treviño (Escuela de Medicina Veterinaria y Zootecnia, UABC, Mexicali, B.C.N. 21180), ‡David W. Hird (Dept. of Epidemiology and Preventive Medicine, School of Veterinary Medicine, UCD, Davis, CA 95616)
Influence of Summer Shade on Milk Production in Dairy Cattle

This project will attempt to verify whether providing summer shade for dairy cattle in the field actually results in increased milk production per cow (as observed in experimental studies). The researchers will compare the milk production records of shaded cattle on a Mexicali Valley dairy farm with those of unshaded herdmates, matched by age, calving date, and previous milk production levels.

Begun June 1982. EDC June 1985. UC MEXUS.

570. ‡Marcela Verónica Gutiérrez Garduño (Dpto. de Protección Forestal, INIF, Av. Progreso 5, Coyoacán, México, D.F. 04110), Salvador Acosta Castellanos (Escuela Nacional de Ciencias Biológicas, Instituto Politécnico Nacional, Carpio y Plan de Ayala, Col. Santo Tomás, México, D.F. 04110)
Catalog of Edible and Toxic Mushrooms in the Experimental Zone of San Juan Tetla, Puebla

The researchers will identify edible and toxic mushrooms in the experimental zone in San Juan Tetla, Puebla and measure the abundance of each type under varying vegetation conditions. Field surveys, collections, and description will result in a field identification manual including identification keys and descriptions.

Begun Jan. 1984. EDC Aug. 1985. SPP.

571. ‡Marcela Verónica Gutiérrez Garduño, ‡Salvador Juárez Osorio, ‡Bertha Ruiz Altamirano (Dpto. de Protección Forestal, INIF, Av. Progreso 5, Coyoacán, México, D.F. 04110), ‡Roberto Vázquez Unda (Dpto. de Protección Forestal, CIFPAS, Calz. de la República 107, Oaxaca, Oax. 68089)

Trees of the Oaxacan Mixteca

This study of tree species in Oaxaca commences with an examination of their distribution in the Mixteca region. Included in the methodology are the collection and description of tree species there, as well as the generation of maps reflecting their distribution. The researchers will suggest uses for these species within the region. Their sources of information include the bibliography dealing with botanical taxonomy, as well as herbarium collections.

Begun Aug. 1983. EDC Dec. 1986. SPP.

572. ‡María Mariela Linares Avila, ‡Raúl Muñiz Vélez (Dpto. de Protección Forestal, INIF, Av. Progreso 5, Coyoacán, México, D.F. 04110)

***Dendroctonus mexicanus* and Associated Populations**

The relationship between *Dendroctonus mexicanus* Hopk and associated insects forms the focus of this study of the effectiveness of felling, wrapping, and abandonment in pest control. The hypothesis states that the above procedure leads to an increase in the population of natural enemies and a decrease in the *Dendroctonus* populations. Methodology includes a survey of inferior, superior, and lateral surfaces, an insect count, and biological analyses.

Begun Aug. 1982. EDC Dec. 1988. SPP.

573. María Guadalupe Macías Campos (Dpto. de Protección Forestal, INIF, Av. Progreso 5, Coyoacán, México, D.F. 04110)

Phytopathological Laboratory Diagnoses

Based on symptomological identifications, microbiological (isolating and culturing) analyses, identification, and a literature review, this study of pathogenic agents in trees aims toward the production of an inventory of tree diseases.

Begun 1983. EDC indefinite. SPP.

574. Javier Melgar (CIFO, Lote 11, Bosques Cuauhtémoc, Morelia, Mich. 58000)
Phenological Events and Seed Production

Phenology, here understood as the study of vegetation's reproduction and growth cycles, is essential in certain forestry efforts such as collecting seeds or determining reproduction rates. This project, which will explore the phenological patterns of coniferous trees, involves marking trees in various survey areas and evaluating them periodically over several years. The researcher will determine seed production parameters and environmental impact.

Begun Jan. 1984. EDC Dec. 1989. Mexican government.

575. ‡Guillermo Naranjo Chávez, Arturo Carrillo Sánchez (CIFO, Lote 11, Bosque Cuauhtémoc, Morelia, Mich. 58000)
Sowing Methods and Timetables for Specific Tree Species

This project will specify the optimal period for germination and growth of certain trees and test and evaluate various planting methods in terms of outcome and cost. The methodology comprises testing the traditional method of seedbed planting followed by later transplanting, direct planting, and production from rootstocks. Also evaluated are various planting times for nursery-raised trees. Species studied include *Alnus firmifolia, Arbutus xalapensis, Cedrella duggessii, Cupressus lindleyi, Franxinus uhdei, Pinus lawsoni, Pinus michoacana*, and *Pinus montezumae*.

Begun Jan. 1984. EDC Dec. 1985. PLANAT/Mexican government.

576. ‡Ivonne Naufal Tuena, Raúl Muñiz Vélez (Dpto. de Protección Forestal, INIF, Av. Progreso 5, Coyoacán, México, D.F. 04110)
Disease in Forestry Nurseries

This project will identify general and specific sanitary conditions in nurseries which produce stock for reforestation projects. In addition to supplying information on predominant disease problems, the researchers will collect information for a catalogue of these diseases. The study hypothesizes that each nursery may have specific and particular sanitary problems. The methodology includes periodic sampling at nurseries, lab analysis of probable pathogens, and development of preventive treatments.

Begun Apr. 1983. EDC indefinite. SPP.

577. ‡Felipe Nepamuceno Martínez, María del Pilar De la Garza (INIF, Av. Progreso 5, Coyoacán, México, D.F. 04110)
Genetic Variation in *Pinus montezumae*

This project will determine the patterns of morphological and genetic variation in *Pinus montezumae*, a species widely distributed throughout varying geographical and ecological environments in Mexico. This wide distribution suggests a high level of variability in its morphology and growth patterns. The methodology involves the collection of vegetative material and seeds by geographic zone, species population, and individual trees. The researchers will analyze morphological characteristics and establish proof of descent under controlled conditions.

Begun Jan. 1984. EDC Dec. 1985. Mexican government. Publications: "Variación morfológica de estructuras vegetativas y reproductivas en poblaciones de *Pinus montezumae*"; "Variación genética del crecimiento temprano de *Pinus montezumae*."

578. Yasmín Rageb Rodríguez (Dpto. de Protección Forestal, INIF, Av. Progreso 5, Coyoacán, México, D.F. 04110)
Ecological Study of *Taxus globosa* in Mexico

This study seeks to determine which environmental factors discourage or favor the development of *Taxus globosa* and its phytosociological characteristics. The researcher will estimate this species' population size in the area of study; determine whether it is increasing or declining; identify the threats which endanger or could eradicate this population; and determine the density per hectare of this species.

Begun Oct. 1984. EDC Mar. 1986.

579. Yasmín Rageb Rodríguez (Dpto. de Protección Forestal, INIF, Av. Progreso 5, Coyoacán, México, D.F. 04110)
The Ecology and Taxonomy of *Pseudotsuga* in the States of Hidalgo and Puebla

Through the collection of botanical material, phytosociological sampling, direct counting of individual plants, and quantitative analysis of vegetation, this study attempts to discover the reasons why the species *Pseudotsuga* is in danger of extinction. The researcher's estimates of the population density of *Pseudotsuga* in 50 locations of the region under study and his consideration of environmental and phytosociological factors will contribute to an understanding of the ecology of this plant. The work will also permit comparisons of *Pseudotsuga* in this region with populations of this species in other areas.

Begun Nov. 1984. EDC July 1985.

580. José Armando Ramírez García (Edif. de Recursos Naturales del Estado de Chiapas, Apto. 98, Tuxtla Gutiérrez, Chis. 29000)
Analysis of Oak Seeds in Chiapas

Determinations of the internal and external morphology of fruits and seeds, as well as the physiological properties of germination and early growth, constitute the focus of this work. This information, which is important for analyses of seeds and plant propagation in seed beds, proceeds from plant collection, morphological evaluations, and controlled experiments on germination and early growth. The principal variables in these experiments include temperature, length of exposure to light, and various pretreatment regimes.

Begun Jan. 1984. EDC June 1985. Mexican government.

581. José Francisco Reséndiz Martínez, Raúl Muñiz Vélez (Dpto. de Protección Forestal, INIF, Av. Progreso 5, Coyoacán, México, D.F. 04110)

Topographic Distribution of Pine Rusts in the State of Mexico

This evaluation of the geographic distribution of pine rusts focuses on correlating the incidence of this disease with environmental factors. The researcher hypothesizes that environmental conditions make probable a certain topographic distribution of the pathogen and a particular pattern of selectivity of host organisms. The study utilizes land surveys at various altitudes and draws additional data from secondary sources.

Begun Apr. 1982. EDC indefinite. SPP.

582. ‡Hans P. Riemann (Dept. of Epidemiology and Preventive Medicine, School of Veterinary Medicine, UCD, Davis, CA 95616), Rubén Carpio Obeso (Escuela de Medicina Veterinaria y Zootecnia, UABC, Mexicali, B.C.N. 21180)

Infectious Diseases in Pregnant Cows

This seroepidemiological study of infectious diseases was conducted among a large herd of pregnant cows assembled in Mexicali. The cows, which numbered about 8,000, came from all parts of Mexico and were managed by three cooperatives. Through recently developed techniques, the cows were examined for agents that can cause abortion (bluetongue virus, brucellosis, and leptospirosis), and the researchers mapped the geographical distribution of these diseases in Mexico.

Begun Dec. 1983. Completed 1984. UC MEXUS.

583. ‡Hans P. Riemann, David W. Hird (Dept. of Epidemiology and Preventive Medicine, School of Veterinary Medicine, UCD, Davis, CA 95616)

Control of Parvovirus Infection among Swine in Baja California

Preliminary studies in 1981-82 indicated widespread parvovirus infection among swine in Baja California. This infection causes abortion or fetal deaths and has a severe impact on swine reproduction. This project will attempt to confirm the prevalence of parvovirus infection through the serological testing of a sample of about 500 swine, and the researchers will field-test a vaccine that eventually may play an important role in the control of parvovirus infection. The School of Veterinary Medicine at UABC-Mexicali is cooperating in the execution of this study.

Begun Apr. 1983. EDC June 1985. UC MEXUS/California Animal Laboratory.

584. ‡Hans P. Riemann, Mowafak Salman (Dept. of Epidemiology and Preventive Medicine, School of Veterinary Medicine, UCD, Davis, CA 95616)
Epidemiological Survey of Dairy Cattle in Coastal Baja California Norte

This project will measure by serology the prevalence of the following infectious diseases of dairy cattle in the study area: leptospirosis, Q fever, bovine leukosis, and paratuberculosis. The researchers will also study the association between the presence of each of these diseases and management, biological, and climatic factors. Blood samples from approximately 9,500 animals were collected, transferred to UCD, and tested for the above four diseases. These animals were located on 110 premises randomly selected from a list of premises in the coastal region of Baja California Norte. The researchers conducted a questionnaire interview during the visit to collect the blood samples and compiled the responses from the questionnaire form, along with serological results, in a computer data file. Statistical analysis of these data will help to determine what factors are significantly associated with each of the above four diseases.

Begun Jan. 1984. EDC Dec. 1984.

585. Catarino Romero Amaya (CNIPF, INIF, Av. Progreso 5, Coyoacán, México, D.F. 04110)
The Physical and Mechanical Characteristics of Board Wood

This study focuses on the most appropriate applications of board woods, given their physical characteristics and current classification schemes. The researcher hypothesizes that, during production, processed woods undergo changes that make their physical-mechanical characteristics better than, or at worst equal to, those of other products made of solid wood.

Begun Jan. 1978. Ongoing. SPP. Publication: C. Romero Amaya, C. De la Paz Pérez Olvera, and G. Corral López, "Características anatómicas y físico-mecánicas de ocho especies de coníferas de Baja California Norte," *Boletín Técnico del Instituto Nacional de Investigaciones Forestales* 57 (1978).

586. Bertha Ruiz Altamirano (Dpto. de Protección Forestal, INIF, Av. Progreso 5, Coyoacán, México, D.F. 04110)
Catalog of Common and Scientific Names of Species in the INIF Herbarium

This project involves the development of three floristic listings of the specimens collected in the INIF herbarium. The first will present common names; the second, scientific names; and the third will combine the two categories in a listing of specimens by state.

Begun July 1984. EDC June 1985.

587. ‡Mowafak Salman (Dept. of Epidemiology and Preventive Medicine, School of Veterinary Medicine, UCD, Davis, CA 95616), Michael McCloskey (P.O. Box 271248, Escondido, CA 92027)
Brucellosis and Tuberculosis Control Programs in Tijuana

This project attempted to develop and implement an effective control program for brucellosis and tuberculosis on four dairy farms in Tijuana. These farms, which cooperate in milk marketing, are fairly isolated from other livestock premises. The researchers took serum samples from 2,200 dairy cows and tested them for brucellosis; in addition, they administered skin tests for tuberculosis to the same animals. The researchers discovered variations in the prevalence of the two diseases among the farms and, based on these variations, proposed an individual herd control program for the two diseases.

Begun Feb. 1984. Completed 1984. Jersey Creamery of the Northwest, Tijuana.

588. ‡Mowafak Salman, Margaret E. Meyer (Dept. of Epidemiology and Preventive Medicine, School of Veterinary Medicine, UCD, Davis, CA 95616)
The Epidemiology of Brucellosis in Baja California Norte: A Comparison between Two Regions

This project compares the findings of an epidemiological survey of livestock premises in the coastal region of Baja California Norte with those of a previous study in the Mexicali Valley.

Begun Jan. 1984. Completed 1984. Publications: "The Epidemiology of Bovine Brucellosis in Mexicali Valley, Mexico: Literature Review of Disease Associated Factors"; M. D. Salman, M. E. Meyer, and D. W. Hird, "The Epidemiology of Bovine Brucellosis in Mexicali Valley, Mexico: Data Gathering and Survey Results"; M. D. Salman, M. E. Meyer, and J. C. Cramer, "The Epidemiology of Bovine Brucellosis in Mexicali Valley, Mexico: Results of Path Analysis;" all in *American Journal of Veterinary Research* 45 (Aug. 1984).

589. ‡Leonor Sandoval Cruz, Raúl Muñiz Vélez (Dpto. de Protección Forestal, INIF, Av. Progreso 5, Coyoacán, México, D.F. 04110)
Insects in the Pine Forests of Puebla

Plant communities of every type have diverse insect populations in which environmental and climatic conditions play an important role. Through periodic sampling, this research aims at discovering which insect groups are temporary and which reside permanently in forests of the species *Pinus montezumae*. The research location is San Juan Tetla, Puebla.

Begun Nov. 1982. EDC Dec. 1985. SPP.

590. Werner H. Terjung (Dept. of Geography, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024)
Potential Food Productivity of Latin America

This project is part of a long-range and worldwide application of parametric crop yield and consumptive water-use modeling for the cultivation of corn, wheat, rye, barley, rice, potatoes, and alfalfa in rain-fed and irrigated agriculture.

Begun Jan. 1983. Ongoing. Publications: J. E. Burt, J. T. Hayes, P. A. O'Rourke, W. H. Terjung, and P. E. Todhunter, "A Parametric Crop Water Use Model," *Water Resources Research* 17 (1981); J. T. Hayes, P. A. O'Rourke, W. H. Terjung, and P. E. Todhunter, "A Feasible Crop Yield Model for Worldwide International Food Production," *International Journal of Biometeorology* 26 (1982); W. H. Terjung, J. T. Hayes, P. A. O'Rourke, J. E. Burt, and P. E. Todhunter, "Consumptive Water Use Response of Maize to Changes in Environment and Management Practices," *Water Resources Research* 18 (1982).

591. ‡J. Giles Waines (Dept. of Botany and Plant Sciences, 1137 Batchelor Hall, UCR, Riverside, CA 92521), José Cosmé Guerrero (Dpto. de Fitopatología, Escuela de Agricultura y Ganadería, Univ. de Sonora, Hermosillo, Son.), Sergio Garza-Ortega (Dpto. de Horticultura, Escuela de Agricultura y Ganadería, Univ. de Sonora, Hermosillo, Son.)
Development of Drought-, Heat-, and Disease-Resistant Vegetables

Beans *(Phaseolus vulgaris)* are a major source of vegetable protein in North America, and in some households they form the principal protein source. Bean production is limited in Mexico and the U.S.A. by high temperatures and a lack of water, as well as by attacks from pests and diseases. The overall aim of this project is to develop beans that will yield better under conditions of limited water and high temperatures. Germplasm from tepary bean *(Phaseolus acutifolius)* and other bean species will be used to increase the drought, heat, and disease *(Macrophomina)* resistance of beans common to California and Sonora.

Begun 1983. Ongoing. UC MEXUS/UCR. Publications: S. J. Bouscaren, J. G. Waines, and L. A. Boykin Bouscaren, "Cultivation and Use of Teparies in Sonora, Mexico," *Desert Plants* 5 (1983):38-42; C. V. Thomas, R. M. Manschardt, and J. G. Waines, "Teparies as a Source of Useful Traits for Improving Common Beans," *Desert Plants* 5 (1983):43-48; J. G. Waines, "Protein Contents, Grain Weights, and Breeding Potential of Wild and Domesticated Tepary Beans," *Crop Science* 18 (1978):587-589.

VI

BIOLOGICAL SCIENCES

592. ‡Francisco X. Arredondo Vega, Bertha Arredondo Vega (Dpto. de Biología Experimental y Aplicada, Centro de Investigaciones Biológicas de Baja California Sur, A.P. 128, La Paz, B.C.S. 23000)
The Effects of Alcohol Dehydrogenase on Sunflower *(H. annuss)* Germination under Salinity Stress

Employing enzyme electrophoresis techniques and spectophotometric assay, this study examines the expression of the alcohol dehydrogenase (ADH) enzyme on sunflower seeds germinating under different salinity environments. By understanding gene expression under such conditions, the researchers hope eventually to correlate the gene-environment interaction.

Begun Jan. 1984. Ongoing. CONACYT/SPP.

593. ‡James G. Baldwin (Dept. of Nematology, UCR, Riverside, CA 92521), Manuel Mundo Ocampo (CIIDIR-IPN, Univ. de Michoacán, Justo Sierra 28 Ote., Jiquilpan, Mich.)
The Heteroderids of Southern Mexico: Identification and Classification

Biogeographic studies suggest that southern Mexico and Central America comprise a major center of diversity of *Heteroderidae* and predict that a number of undescribed tropical species occur in this region. Research has revealed three Mexican populations of *Globodera* with host ranges atypical of known species, as well as unidentified populations of *Heterodera* on bean, cauliflower, tomato, sugarbeet, tobacco, sugarcane, and various native plants. This project will survey southeastern Mexico for heteroderids, and it will morphologically characterize these nematode populations using light and scanning electron microscopy at UC-Riverside. Where the study reveals new species and genera, the researchers will make taxonomic descriptions of them and will concurrently conduct host range and pathogenicity tests on each population at the Colegio Superior de Agricultura Tropical, Tabasco. The results of these studies ultimately will be incorporated with data on heteroderids in the southwestern United States and throughout the world, in order to produce a new phylogenetic analysis and a taxonomic revision of *Heteroderidae*.

Begun Jan. 1983. Ongoing.

594. ‡James G. Baldwin (Dept. of Nematology, UCR, Riverside, CA 92521), Manuel Mundo Ocampo (CIIDIR-IPN, Univ. de Michoacán, Justo Sierra 28 Ote., Jiquilpan, Mich.)

Characterization of Mexican Burrowing Nematodes for Control and Regulation

Radopholus similis is among the most economically important nematodes in Mexico due to its pathogenicity on banana and other essential crops. The design of effective programs for control and regulation of this pest has been hindered by the occurrence of physiological races. This research will characterize Mexican populations through host range tests, to be conducted in Jiquilpan, Michoacán. The populations will be further characterized for future identification by correlating host range results with detailed morphological and cytological data to be developed at UC-Riverside. Results will lead to improved identification and more efficient control of this pest in Mexico.

Begun Jan. 1984. Ongoing. UC MEXUS.

595. ‡Taurino Barrios Rodríguez, ‡Luis Raúl Tovar Gálvez, ‡Opitz Volker (SINFARMEX, Carrizo 38, México, D.F. 07700)

Innovations in a Heparin Plant Located in Tenancingo

Heparin, a polysaccharide with anticoagulant properties and a most effective antithrombotic agent, is isolated at an industrial plant in Tenancingo from hog intestinal mucosa by means of technologies developed locally. Most of the heparin produced in this plant is exported to either Europe or the U.S. The researchers are attempting to improve the production process by developing applications for its by-products, such as free fatty acids and polar and non-polar peptides, which have heretofore been pollution-causing agents. They are also replacing an important input, a quaternary ammonium salt that complexes heparin, with an ion-exchange resin manufactured in Mexico.

Begun Mar. 1984. EDC Mar. 1985. PROQUIFIN.

596. ‡Salomón Bartnicki García (Dept. of Plant Pathology, UCR, Riverside, CA 92521), José Ruiz Herrera (Instituto de Investigación en Biología Experimental, Univ. de Guanajuato, A.P. 187, Guanajuato, Gto. 36000)

Isolation and Study of Fungal Plasmalemma

The plasmalemma, a fundamental part of a fungal cell (or, for that matter, of any living cell), surrounds the cytoplasm and controls the movement of substances in and out of the cell. It is also believed to be the site for the synthesis of external structural polysaccharides, polymers which are deposited outside the plasmalemma to form a characteristic rigid envelope — the cell wall. In an attempt to elucidate the exact role of plasmalemma in the formation of the fungal cell wall, the researchers plan to purify plasmalemma from growing cells of fungi through ultracentrifugation in sucrose gradients. Radioactive tracers will be employed to label the plasmalemma. The researchers will analyze the chemical composition and some key enzymatic properties of the plasmalemma of fungi *(Neurospora* and *Mucor)* and will attempt to understand how chitosomes interact with the plasmalemma. Chitosomes are minute vesicles present inside the cytoplasm of fungi; they are the conveyors of an enzyme (chitin synthetase) needed to make chitin, the major structural polysaccharide of fungal cell walls. The present study is a logical extension of the researchers' previous collaborative efforts which led to the discovery of chitosomes.

Begun Sept. 1983. Ongoing. Publications: J. Ruiz-Herrera, C. E. Bracker, and S. Bartnicki-García, "Sedimentation Properties of Chitosomes from *Mucor rouxii,*" *Protoplasma* 122 (1984):178-190; S. Bartnicki-García, C. E. Bracker, E. Lippman, and J. Ruiz-Herrera, "Chitosomes from the Wall-less 'Slime' Mutant of *Neurospora crassa,*" *Archives of Microbiology*, forthcoming.

597. ‡Donald G. Buth, C. B. Crabtree, R. D. Orton, Walter J. Rainboth, Boyd W. Walker (Dept. of Biology, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024)

Systematic Studies of Mexican Fishes

This study applies biochemical and morphometric methods and phylogenetic analyses to populations of Mexican fishes to attempt to recognize new species and relationships of species.

Begun July 1980. Ongoing. NSF. Publications: C. B. Crabtree, "Assessment of Genetic Differentiation within the Atherinid Genus *Leuresthes,*" *Isozyme Bulletin* 16:77 (1983); R. D. Orton and D. G. Buth, "Minimal Genetic Differentiation between *Girella nigricans* and *Girella simplicidens* (Perciformes: Kyphosidae)," *Isozyme Bulletin* 17 (1984):66.

598. ‡Félix Córdoba Alva, Patricia Espinosa Alarcón (Dpto. de Biología Experimental y Aplicada, Centro de Investigaciones Biológicas de Baja California Sur, A.P. 128, La Paz, B.C.S. 23000)

Immunochemical Determination of Sex in Jojobas

Using the techniques of immunochemistry, the researchers attempt to determine the sex of the jojoba *(Simmondsia chinensis)* in its early growing stages. Assuming that there are differences in the chemical composition between the male and female jojoba and that these characteristics induce the formation of different antibodies, the researchers have employed immunological and biochemical techniques such as electrophoresis, liquid chromatography, passive hemagglutination, ELISA, etc. They are currently working with policlonal antibodies but hope that they will soon be able to use monoclonal antibodies.

Begun 1976. EDC indefinite. SPP. Publications: I. Muñoz, J. Gutiérrez, A. Cota, and F. Córdoba, "La variabilidad sexual y morfológica de la jojoba," in *Informe General de Labores del Centro de Investigaciones*

Biólogicas (La Paz, B.C.S.: Centro de Investigaciones Biólogicas de Baja California Sur, 1979); F. Córdoba, A. Cota, I. Muñoz, and A. Espiñosa, "Detección temprana del sexo en jojoba: los fenoles y los antígenos," *Revista Interciencia*, submitted.

599. ‡Alicia Gamboa de Buen, Claudia Román Echavarri (Dpto. de Biología Experimental y Aplicada, Centro de Investigaciones Biológicas de Baja California Sur, A.P. 128, La Paz, B.C.S. 23000)
Taurine Participation on Halotolerance in Algae

This project uses the freshwater alga *Chlamydomonas reinhardii* as a model to study halotolerance mechanisms. By culturing the alga in a media with high taurine concentrations, the researchers increased its tolerance to NaCl. They are also studying the effect of taurine on intracellular accumulation of ion and free amino acids in order to determine the role of taurine in halotolerance mechanisms. Flame photometry techniques are used for Na^+ and K^+ quantifications and thin-layer chromatography for determinations in free amino acids.

Begun Jan. 1982. EDC indefinite. SPP. Publication: T. Reynoso and A. Gamboa, "Salt Tolerance in the Freshwater Algae *Chlamydomonas reinhardii:* Effects of Proline and Taurine," *Comparative Biochemistry and Physiology* 73 (1982):95-99.

600. ‡George P. Georghiou (Dept. of Entomology, UCR, Riverside, CA 92521), Angel Lagunes Tejeda (Centro de Entomología y Acarología, Colegio de Posgraduados, Chapingo, D.F.)
Insecticide Resistance in the Malaria Vector Mosquito *Anopheles Albimanus*

Increased levels of insecticide-metabolizing enzymes have often proved responsible for insecticide resistance. Elevated levels of one or more esterases have been strongly associated with organophosphorus insecticide resistance in several insect species, including mosquitoes. In *Anopheles albimanus,* the principal vector of malaria in Mexico and Central America, resistance to organophosphorus insecticides has been attributed primarily to the selection of an insensitive target enzyme, acetylcholinesterase; nonetheless, the existence of metabolic resistance remains a distinct possibility. In continuing studies under this project, "baselines" of general esterase activity for *Anopheles albimanus* and *Culex* species *(C. quinquefasciatus, C. tarsalis)* were determined for future comparison with suspected field-resistant strains. Esterase levels, readily determined with nonspecific substrates such as α- and β-naphthylacetate, were found to cover a similar range in all susceptible strains. The upper limits of esterase activity may therefore be used as diagnostic limits between susceptible and resistant enzymes.

Begun Jan. 1982. Ongoing. USAID/WHO/UC MEXUS. Publication: J. Hemingway and G. P. Georghiou, "Baseline Esterase Levels for Anopheline and Culicine Mosquitoes, *Journal of the American Mosquito Control Association* 44 (1984):33-35.

601. ‡Arthur C. Gibson (Dept. of Biology, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024), Eloy Rodríguez (Dept. of Biology, UCI, Irvine, CA 92717), et al.

Phylogeny of the Tribe *Pachycereeae (Cactaceae)*

This study, a vegetative anatomy of North American desert perennials, examines the systematic and evolutionary history of columnar cacti of North America, especially Mexico.

Begun Aug. 1981. Completed. NSF. Publications: "Anatomy of Photosynthetic Old Stems of Nonsucculent Dicotyledons from North American Deserts," *Botanical Gazette* 144:3 (1983); J. L. Brown and A. C. Gibson, *Biogeography* (St. Louis: C. V. Mosby, 1983).

602. ‡Edward P. Glenn, ‡James W. O'Leary (Environmental Research Lab., Tucson International Airport, Univ. of Arizona, Tucson, AZ 85706)

Domestication of Halophytes for Seawater Agriculture

Having collected endemic Mexican halophytes from saline locations throughout Mexico, the researchers are growing them in outdoor field plots at Puerto Peñasco, Sonora, using seawater from the Gulf of California as irrigation water. The plants are measured for biomass production and are assayed for nutritional content, and some species are used in the United States as experimental animal feed ingredients. The researchers' goal is to develop seawater-based forage, feed, and oilseed crops for coastal deserts typical of those along the Sonoran coastline.

Begun 1979. Ongoing. Publications: "Productivity and Irrigation Requirements of Halophytes Irrigated with Seawater in the Sonoran Desert," *Journal of Arid Environments*, forthcoming; "Relationship between Salt Accumulation and Water Content of Dicotyledenous Halophytes," *Plant, Cell & Environment*, 7 (1984):253-261.

603. ‡Gordon Gordh (Dept. of Entomology, UCR, Riverside, CA 92373), Filiberto Reyes (Facultad de Ciencias Biológicas, Univ. Autónoma de Nuevo León, A.P. 2790, Monterrey, N.L.)

Systematic Studies of Parasitic Hymenoptera of Mexico

This project will survey the parasitic Hymenoptera fauna of Mexico; train Mexican colleagues in the collection, identification, and curation of parasitic Hymenoptera; and prepare keys to known genera of parasitic Hymenoptera found in Mexico. The researchers will also revise taxa of agriculturally important parasitic Mexican Hymenoptera; compare the fauna of parasitic Hymenoptera found in Mexico to the Nearctic fauna; and develop a national collection of these insects for study by Mexican scientists.

Begun June 1982. EDC indefinite. UC MEXUS.

604. ‡José Luis Herce Vigil, ‡Leonel Tamayo Rodríguez (Dpto. de Materiales, Laboratorios Nacionales de Fomento Industrial, Av. Industria Militar 261, Lomas de Sotelo, México, D.F. 11200)

A Comparative Study of Marine Product Packaging

This project evaluated the quality of metal containers used for packaging marine food products in Mexico. The research team collected random samples from food distribution centers and applied three independent tests to analyze containers and contents in terms of the following characteristics: shape, size, external appearance, vacuum, steel coating, type and thickness of varnish coat, degree of internal corrosion and sulfur content, net and drained weight, acidity, organoleptic characteristics, and heavy metal content. For comparative purposes, the researchers also examined similar products imported from North America, Asia, and Europe. Research results indicate the absence of a uniform system of quality control in Mexico's seafood canneries, lead levels approximating those found in the products of other nations, and insufficient labelling information.

Begun Jan. 1984. Completed 1984. Laboratorios Nacionales de Fomento Industrial.

605. Henry A. Hespenheide (Dept. of Biology, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024)

Taxonomic Revision of the Beetle Family *Buprestidae*, Subfamilies *Agrilinae* and *Trachyinae*

The project entails descriptive taxonomic revisions of the beetles, based primarily (for Mexico) on specimens in public and private collections rather than on field studies. The researcher is conducting natural history studies in the field in Arizona, just north of the Sonoran border, and is studying the evolution of mimicry in the genus *Agrilus*.

Ongoing. UCLA Academic Senate. Publications: "Nomenclatural Notes on the *Agrilinae (Buprestidae)*: IV," *Coleopterists Bulletin* 33 (1979); "*Agrilus xanthonotus* (Yellow-spotted Byttneria Borer)," in *Costa Rican Natural History*, ed. D. H. Janzen (Chicago: Univ. of Chicago Press, 1983); "Comment: Insect Diversity in the Borderlands," in *Bioresources and Environmental Hazards of the United States-Mexico Borderlands: Problems and Policy Recommendations*, eds. P. Ganster and H. Walter, 1984.

606. Henry A. Hespenheide (Dept. of Biology, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024)

Taxonomic Revision of the Beetle Family *Curculionidae*, Subfamilies *Zygopinae*, *Tachygoninae*

The project involves descriptive taxonomic revisions of the beetles, based primarily on specimens from Mexico in public and private collections. The researcher is conducting field studies in Costa Rica on the leafmining genus *Tachygonus* and is considering the evolution of mimicry in the *Zygopinae*.

Ongoing. UCLA Academic Senate. Publications: "New Species and a Review of the Genus *Helleriella (Coleoptera: Curculionidae: Zygopinae),*" *Coleopterists Bulletin* 34 (1980); "New Neotropical Species of Putative Ant-mimicking Weevils *(Curculionidae: Zygopinae),*" *Coleopterists Bulletin* 38 (1984).

607. ‡Henry A. Hespenheide (Dept. of Biology, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024), Eric M. Fisher (Dept. of Entomology, UCR, Riverside, CA 92521)

Ecology of Robberflies *(Diptera: Asilidae)* of Southeastern Arizona

Based on field observation, this project examines the community ecology of the robberfly fauna of the Chiricahua Mountains and environs (ca. 125 species). It emphasizes the selection of prey by adults, macro- and microhabitat differences, and seasonal phenology.

Ongoing. UCLA Academic Senate. Publications: H. A. Hespenheide and M. A. Rubke, "Prey, Predatory Behavior and the Daily Cycle of *Holopogon Wilcoxi* Martin *(Diptera: Asilidae),*" *Pan-Pacific Entomology* 53 (1977); H. A. Hespenheide, "Prey, Predatory and Courtship Behavior of *Nannocyrtopogon Neoculatus* Wilcox and Martin *(Diptera: Asilidae),*" *Journal of the Kansas Entomological Society* 51 (1978).

608. ‡Carol C. Horvitz, ‡Douglas W. Schemske (Dept. of Biology, Barnes Lab., Univ. of Chicago, 5630 S. Ingleside Ave., Chicago, IL 60637)

Plant-Animal Interactions and the Demography of a Neotropical Herb

Little is currently understood about the effects of stage-specific plant-animal interactions (e.g., herbivory, seed dispersal, pollination, defense by ants) on plant population dynamics and plant life-history traits. The research examines the consequences of multitrophic-level, stage-specific interactions within the demographic context of *Calathea ovandensis (Marantaceae),* a tropical monocot. The researchers hypothesize that changes in the values of demographic parameters of a magnitude equivalent to the effects of plant-animal interactions will affect the long-term limiting and/or transient dynamics of plant populations and/or their life-history characters. This research emphasizes a combined approach to the study of plant demography and plant-animal interactions that will yield new insights into important ecological and evolutionary processes.

Begun July 1982. Ongoing. NSF. Publications: "Effects of Nectar-harvesting Ants and an Ant-tended Herbivore on Seed Production of a Tropical Herb," *Ecology,* forthcoming; "Variation among Floral Visitors in Pollination Ability: A Precondition for Mutualism Specialization," *Science,* forthcoming.

609. Robert R. Humphrey (Dept. of Ecology and Evolutionary Biology, Univ. of Arizona, Tucson, AZ 85721)
Idria Columnaris — Rate of Growth as a Determinant of Age

As a continuation of work initiated under the *Idria* (Boojum) NSF grants of some years ago, the researcher has been measuring diameter and height increments on 41 *Idria columnaris* at 3 sites — two in central Baja California and one in Sonora. These measurements, initiated in 1967, will help determine both the present rate of growth and the calculated age of plants of present *Idria* populations in Baja California and on the mainland. Measurements of height and diameter are being made at periodic intervals on 24 trees in Baja California and 17 in Sonora.

Begun 1967. Ongoing. NSF/Univ. of Arizona Foundation. Publications: *The Boojum and Its Home* (Tucson: Univ. of Arizona Press, 1974); "A Taller — the Tallest? — Cirio," *Cactus and Succulent Journal* 50 (1978).

610. ‡Robert R. Humphrey, Roberta J. Humphrey (Dept. of Ecology and Evolutionary Biology, Univ. of Arizona, Tucson, AZ 85721)
Ninety Years of Change along the U.S.-Mexico Boundary

In the mid-1890s photographs were taken of the monuments marking the U.S.-Mexican International Boundary from El Paso to San Diego. Included in the photos were the surrounding terrain and vegetation. This project initiates a study of vegetational and landform changes during the 90-year period from 1893 to 1983 along the boundary between El Paso, Texas and the Colorado River. It involves re-photographing most or all of the markers along this section of the border and recording dominant vegetation and landform characteristics. In addition, the researchers will review the correlative historical, biological, and other literature that relates in any way to an analysis of changes during the 90-year interval. These changes will be explained in relation to climate, grazing, and other human-caused land-use practices.

Begun May 1983. EDC June 1985. Univ. of Arizona/Arizona Historical Society.

611. ‡Louis Levine, Robert F. Rockwell (Dept. of Biology, CCNY, New York, NY 10031), Ethan Akin (Dept. of Mathematics, CCNY, New York, NY 10031), Wyatt W. Anderson (Dept. of Genetics, Univ. of Georgia, Athens, GA 30602), María Esther de la Rosa, María Isabel Gaso, Francisco González, Judith Guzmán, Olga Olvera, Víctor M. Salceda (Dpto. de Aplicaciones Biomédicas, Instituto Nacional de Investigaciones Nucleares, México 11, D.F.), Jeffrey R. Powell (Dept. of Biology, Yale Univ., New Haven, CT 06520)
Chromosomal and Behavioral Studies of Mexican _Drosophila_

This binational cooperative project involves American and Mexican geneticists whose aim is the study of the chromosomal and behavioral characteristics of natural populations of *Drosophila pseudoobscura* in Mexico. The species has until recently been studied mainly in the United States. However, the greater part of its southern distribution, and also probably its origin, lie in Mexico. The researchers have investigated seasonal chromosomal changes in the Mexican populations and compared these chromosomal cycles with those observed in U.S. populations of the species. They are also studying various behavioral traits to determine whether these traits change seasonally and whether such changes are correlated with the chromosomal cycles of the populations. The investigators have collected the flies at Tulancingo (Hidalgo), Amecameca (México), and Zirahuén (Michoacán). The populations at Tulancingo and Amecameca have relatively few chromosomal types, whereas the population at Zirahuén is chromosomally far more complex. Correspondingly, the behavioral traits of the flies from Tulancingo are very similar to those of flies from Amecameca, but the behavior of flies from Zirahuén differs markedly from that of the other two groups.

Begun 1975. Ongoing. NSF/PSC-CUNY. Publications: R. F. Rockwell, M. E. de la Rosa, E. Akin, M. I. Gaso, F. González, J. Guzmán, L. Levine, and O. Olvera, "Chromosomal and Behavioral Studies of Mexican *Drosophila* I: Vagility Characteristics of Three Populations of *Drosophila pseudoobscura*," *Behavior Genetics* 13 (1983); M. E. de la Rosa, M. I. Gaso, F. González, J. Guzmán, L. Levine, O. Olvera, and R. F. Rockwell, "Chromosomal and Behavioral Studies of Mexican *Drosophila* II: Temporal Changes of Vagility Characteristics of Three Populations of *D. pseudoobscura*," *Journal of Heredity* 75 (1984).

612. Carl S. Lieb (Dept. of Biological Sciences, Laboratory for Environmental Biology, UTEP, El Paso, TX 79968)

Evolution and Biosystematics of the Mexican *Anolis* Fauna (*Sauria: Iguanidae*)

This research concerns ongoing studies on the very diverse native fauna of *Anolis* lizards in Mexico. These efforts utilize data from a variety of sources — chiefly biochemical, karyological, and morphological — in order to explore the nature of the speciation mechanisms involved and to shed light on the phylogenetic relationships among these taxonomically difficult animals.

Begun Nov. 1977. Ongoing. Publication: G. C. Gorman, C. S. Lieb, and R. H. Harwood, "The Relationships of *Anolis gadovi*: Albumin Immunological Evidence," *Caribbean Journal of Science*, forthcoming.

613. E. Gorton Linsley (Dept. of Entomology, UCB, Berkeley, CA 94720)

Insect Pollinators of Desert Plants in the Southwestern U.S. and Northern Mexico

The perennial flowering plants under study in this project (*Acacia, Cercidium, Chilopsis, Dalea, Larrea, Olneya, Parkinsonia*) were chosen for their ecological importance in desert ecosystems and their actual or potential usefulness. Tamarisks, although not native to the region, have been included in the research to permit an evaluation of their impact on populations of pollinators and because of their importance in preventing sand movement across highways and into urban and suburban areas. The study is identifying the sequence of flower visitors (mostly native bees) and their competitive relations under stable and variable weather conditions, in large part through continuous sampling in half-hour periods from dawn to dusk. Voucher specimens of pollinators, now numbering approximately 65,000 individuals of 2,100 species (75 percent of which are solitary bees of seven families) are on deposit in the Essig Entomological Museum at UC-Berkeley.

Begun 1972. Ongoing. UC/Smithsonian Institution. Publications: P. D. Hurd, Jr. and E. G. Linsley, "The Principal *Larrea* Bees of the Southwestern United States," *Smithsonian Contributions to Zoology* 193 (1975); E. G. Linsley, "Temporal Patterns of Flower Visitation by Solitary Bees, with Particular Reference to the Southwestern United States," *Journal of the Kansas Entomological Society* 54 (1978).

614. E. Gorton Linsley (Dept. of Entomological Sciences, UCB, Berkeley, CA 94720)

Sunflower Visitors of the Southwestern U.S. and Northern Mexico

This project examines the ecological and evolutionary significance of insect visitors to sunflowers *(Helianthus)* and their role in pollination of wild and cultivated varieties.

Begun 1973. Ongoing. UC/Smithsonian Institution. Publication: P. D. Hurd, Jr., W. E. LaBerge, and E. G. Linsley, "Principal Sunflower Bees of North America with Emphasis on the Southwestern United States," *Smithsonian Contributions to Zoology* 310 (1980).

615. ‡Jorge Llorente-Bousquets (Museo de Zoología, Dpto. de Biología, Facultad de Ciencia, UNAM, C.U., México, D.F. 04510), Arthur M. Shapiro (Dept. of Zoology, Storer Hall, UCD, Davis, CA 95616)

Butterfly Ecology and Biogeography in the Valley of Mexico

Shapiro at UC-Davis and Llorente at the UNAM have conducted a series of ecological and biogeographical studies of *Papilionoidea* throughout various states in the Valley of Mexico. The present study encompasses five areas, two in the Federal District, two in Morelos, and one in the state of México. These investigations, when combined with a collection of specimens and an in-depth bibliographical search, will improve current knowledge about butterfly populations in the Valley of Mexico and will answer questions about each species in terms of size of population, migratory characteristics, and geographical dispersal, as well as about the limits on relative population sizes, especially in urban and suburban areas.

Begun Sept. 1982. EDC indefinite. UNAM. Publication: A. M. Shapiro, "Errores en plantas huésped de mariposas mexicanas como una extrapolación de la literatura estadounidense," *Revista Mexicana de Lepidopterología* 8:2 (1983):47-48.

616. Park S. Nobel (Dept. of Biology, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024)
Plant-Environmental Interactions

The purpose of this project is to study the physiological and microclimatic factors that affect plant distribution and productivity, particularly of agaves and cacti. The agaves currently being studied include *Agave lecheguilla* near Saltillo, Coahuila; *Agave fourcroydes* near Mérida, Yucatán; and *Agave salmiana* near Salinas de Hidalgo, San Luis Potosí. The cacti include various barrel and ceroid forms in the Sonoran Desert. The approach combines field measurements of morphology, distribution, and productivity; laboratory measurements of water relations and gas exchange; and computer modeling.

Begun Jan. 1976. Ongoing. U.S. Department of Energy/NSF. Publications: "Morphology, Surface Temperatures, and Northern Limits of Columnar Cacti in the Sonoran Desert," *Ecology* 61 (1980):252-258; "Interception of Photosynthetically Active Radiation by Cacti of Different Morphology," *Oecologia* (Berlin) 45 (1980):160-166; "Environmental Responses of Agaves — A Case Study with *Agave deserti*," in *Simposio Internacional sobre Problemas y Perspectivas de la Biología y Aprovechamiento Integral del Henequén y Otros Agaves*, forthcoming.

617. ‡Enrique Pardo Tejeda (Dirección de Investigación, INIREB, A.P 63, Xalapa, Ver. 91000), ‡Joann P. Roskoski (NifTAL Project, Dept. of Agronomy and Soil Science, Univ. of Hawaii, P.O. Box 0, Paia, HI 96779)
Woody Tropical Legumes: Potential Sources of Fodder, Firewood, and Soil Enrichment

Insufficient fodder for animals, lack of firewood for man, and decreasing soil fertility for agricultural production are three problems which Mexico shares with most developing tropical nations. Expanding the cultivation of woody legumes (which fix nitrogen and provide fuelwood and protein-rich forage in small woodlots or as integral parts of agricultural systems) may represent a solution to these problems. However, for the majority of woody-legume species, researchers lack the quantitative data needed to evaluate this suggestion critically. The University of Hawaii NifTAL Project and the Instituto Nacional de Investigaciones sobre Recursos Bióticos (INIREB) in Xalapa, Veracruz are quantifying nitrogen fixation and fuelwood and forage production by several species of tree legumes on two experimental plantations in Veracruz. INIREB has measured production, and the University of Hawaii will assess nitrogen fixation and soil nitrogen enrichment by the test species. The results of these studies will permit evaluation of the relative merits of several species of leguminous trees for forage, fuelwood, and soil enrichment, while simultaneously providing basic data about the biology of this important tropical plant group.

Begun Sept. 1982. EDC Sept. 1985. NSF.

618. ‡Enrique Pardo Tejeda (Dirección de Investigación, INIREB, A.P. 63, Xalapa, Ver. 91000), ‡Joann P. Roskoski (NifTAL Project, Dept. of Agronomy and Soil Sciences, Univ. of Hawaii, P.O. Box 0, Paia, HI 96779)

Native Fast-growing, Nitrogen-fixing Trees: A Source of Fodder, Fuelwood, and Soil Enrichment

This research will determine how to employ nitrogen-fixing trees to provide needed resources and to renovate degraded tropical landscapes. The goal of the proposed research is to study two lowland species of nitrogen-fixing trees *(Albizia lebbeck* and *Enterolobium cyclocarpum),* two upland species *(Inga jinicuil* and *Erythrina americana),* as well as *Leucaena leucocephala,* as sources of fodder, firewood, and soil enrichment. The researchers also plan to identify and test additional species of fast-growing, nitrogen-fixing trees with high potential for multiple uses.

Begun Feb. 1983. EDC Feb. 1986. National Academy of Sciences.

619. ‡Ian Pepper (School of Agriculture, Univ. of Arizona, Tucson, AZ 85721), ‡Joann P. Roskoski (NifTAL Project, Dept. of Agronomy and Soil Science, Univ. of Hawaii, P.O. Box 0, Paia, HI 96779)

Isolation and Evaluation of Inoculants for Woody Legumes in Mexico

This research focuses on whether inoculation of woody legumes with efficient, competitive rhizobia results in superior biomass production. The researchers and their collaborators in other countries have isolated rhizobial symbionts from *Acacia pennatula, Leucaena leucocephala,* and *Gliricidia sepium,* and these woody legumes were evaluated by INIREB in Xalapa, Veracruz as possible sources of fuelwood, forage, and soil enrichment via biological nitrogen fixation (BNF). The researchers are presently evaluating the efficiency of BNF and the ability of strains to survive in soil in greenhouse studies; they are also assessing the benefits of inoculation with superior strains and determining the competitiveness of these strains in a field trial in Veracruz.

Begun July 1981. Completed. USDA/SEA.

620. ‡Rodolfo Quintero-Ramírez, Ana Solórzano-Mier (Centro de Investigación Prospectiva, Fundación Javier Barros Sierra, A.P. 20061, México, D.F. 01000)

The Future of Biotechnology and Its Implications for the National Productive Sector

This investigation attempted to anticipate the future role of biotechnology in various productive sectors, including comestibles, energy, primary production, the chemical and pharmaceutical industries, mining, and pollution control. The researchers constructed scenarios (for the years 1990 and 2000) to identify scientific-technological problems and detect strategic or opportunity areas in the following fields: bioindustry and the rules and regulations governing it; technological development; and scientific research and education. The methodology was especially adapted for use in the emerging field of biotechnology.

Begun Jan. 1984. Completed 1984. BANAMEX. Publications: R. Quintero, ed., *La biotecnología en México: alcances y perspectivas* (México, D.F.: UNAM, forthcoming); "Framing a National Program on Biotechnology in Mexico," *ATAS Bulletin* 1 (1984):100-102.

621. ‡Eloy Rodríguez (School of Biological Sciences, Developmental and Cell Biology, UCI, Irvine, CA 92717), F. Hoffman (Dept. of Biology, UCI, Irvine, CA 92717), Alfonso Romo de Vivar (Instituto de Química, UNAM, C.U., México, D.F. 04510)

Alternative Sources of Hydrocarbons from Desert Plants: A Cooperative Research Program between UC-Irvine and UNAM

At the request of scientists in Mexico, the researchers have organized a group of U.S. scientists who will actively collaborate with their Mexican colleagues to explore, investigate, select, and develop new sources of hydrocarbons (oil and rubber) and chemical specialties (resins) from arid land plants of Baja California and southern California. This cooperative basic and applied program includes chemists and biologists from the Institutes of Chemistry and Biology at UNAM. The program focuses on a common national crisis — the immediate need to explore and develop alternative and renewable resources from arid lands to meet some of the energy demands of the U.S. and Mexico. Future chemicals studied by scientists at UC-Irvine and UNAM will result in the production of pharmaceuticals and medicines that could substitute for petroleum-derived products. A binational symposium on renewable phytochemicals of the desert was held in January 1983 at UC-Irvine.

Begun Aug. 1981. EDC 1985. Publications: E. Rodríguez, "Desert Phytochemicals — Alternative Energy Resources," in *Proceedings of the Society of the Advancement of Chicanos and Native Americans in Science* (Washington, D.C., 1982); P. Proksch, M. Aregullin and E. Rodríguez, "A New Benzophran — Benzofuran Dimer from *Encelia Ventorum (Asteraceae)*," *Planta Medica* (1982); E. Rodríguez, "New Insecticides and Cytotoxic Constituents from Desert Plants," in *Plant Resistance to Insects*, ed. P. A. Hedin, American Chemical Symposium Series, 208 (Washington, D.C., 1983).

622. ‡David T. Rogers, Jr. (Dept. of Biology, Univ. of Alabama, P.O. Box 1927, University, AL 35486), Jesús García B. (Dirección General de Flora y Fauna Silvestres, Mérida, Yuc. 97000)
North American Migratory Birds in Yucatán

This study compares pre-migration and post-migration weights of birds in Yucatán with similar data from the northern Gulf coast of North America. The researchers hypothesize that migration routes and needs of birds can be assessed through these continuing studies.

Begun Sept. 1981. Ongoing. Publications: "Una investigación de los pájaros migratorios en el norte del estado de Yucatán," in *Congreso Iberoamericano de Ornitología*, 1983; D. T. Rogers, Jr., J. García, and R. B. Antonio, "Studies of North American Migrants in Yucatán, México," submitted.

623. ‡Joann P. Roskoski (NifTAL Project, Dept. of Agronomy and Soil Science, Univ. of Hawaii, P.O. Box 0, Paia, HI 96779), ‡Tim Wood (Native Plants, Inc., 360 Wakara Way, Salt Lake City, UT 84108)
Establishment of Woody Legumes in the Tropics: The Impacts of Soil Disturbance on Rhizobia and VAM Fungi

Leguminous trees and shrubs with capacities for rapid growth, nitrogen fixation, and production of protein-rich foliage and fruits hold potential for use in restoring degraded tropical lands. Many depend on the formation of a tripartite symbiosis between the legume *Rhizobium bacteria* and vescular-arbuscular mycorrhizal (VAM) fungi. This study examines the impacts of disturbances on populations of rhizobia and VAM fungi in tropical soils and upon the subsequent establishment of several economically important species of woody legumes. Soils from undisturbed and disturbed tropical sites have been bioassayed for their potential to inoculate woody legumes with effective microsymbionts, to support early growth and survival, and to provide nutrient requirements (nitrogen and phosphorous). The researchers are now further analyzing these soils for rhizobial and VAM abundances and diversities and for chemical properties, and they plan to examine statistically the linkages between these parameters. This research is central to basic interests in secondary tropical succession and to applied interests in developing woody legumes for use in restoring degraded tropical lands.

Begun May 1982. EDC May 1985. NSF.

624. ‡Arthur M. Shapiro (Dept. of Zoology, UCD, Davis, CA 95616), Jorge Llorente-Bousquets (Dpto. de Biología/Museo de Zoología, UNAM, C.U., México, D.F. 04510)
Historical Biogeography and Phylogeny of Pierid Butterflies in the Neotropics

Llorente at UNAM and Shapiro at UC-Davis, working on the Mexican Dismorphiines and Andean-Patagonia Pierines respectively, have both been interested in attempting to reconstruct the phylogeny and historical biogeography of butterflies in the Neotropics. In March 1982, Shapiro visited UNAM, presented a mini-course on the methodology of historical biogeography and phylogeny reconstruction, and conferred with Llorente and his colleagues to compare approaches and examine possibilities for future collaboration. In June-July 1982 Llorente visited UC-Davis, learned various techniques used in Shapiro's laboratory, and did literature searches in the UC library system.

Begun Mar. 1982. Ongoing. Publication: A. M. Shapiro, "Errores de determinación de plantas alimenticiarias de mariposas mexicanas," *Revista Mexicana de Lepidopterología* 8:2.

625. ‡Arthur M. Shapiro (Dept. of Zoology, UCD, Davis, CA 95616), Jorge Llorente-Bousquets (Dpto. de Biología/Museo de Zoología, UNAM, C.U., México, D.F. 04510)

Photoperiodic Adaptations of Mexican *Pieris Rapae* *(Lepidoptera: Pieridae)*

The European Cabbage Butterfly, *Pieris rapae L.*, was introduced to North America about 1860 and is now found over most of the U.S. and southern Canada. An isolated population occurs in the "floating gardens" at Xochimilco, D.F. — the southernmost known population of *rapae* in the Americas and the closest to the Equator in the species range. Since the photoperiodic reactions of U.S. populations vary geographically and these variations are adaptive to seasonal regimes, the researchers decided to examine the Mexican population, which flies all year (with a wet-season maximum). Preliminary screening has determined that this population has a weaker diapause and a lower propensity to diapause than any known U.S. population, and that its reactions to cold-night, short-day regimes differ markedly from any other yet tested. Its reactions will be quantified for comparison with several other populations, including the Hawaiian population introduced from California in 1897, which represents the only other tropical-latitude occurrence of *rapae*. The researchers obtained their culture at Xochimilco in March 1982, and it is now in its tenth generation.

Begun Mar. 1982. EDC 1986. Dept. of Zoology, UCD.

626. Hartmut Walter (Dept. of Geography, 1255 Bunche Hall, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024)

Terrestrial Vertebrates of the U.S.-Mexican Borderlands

As part of an ongoing effort to develop an atlas of borderlands bioresources, this project attempts to develop detailed distribution maps of all terrestrial vertebrates in the ten states sharing the international border. The resulting range maps will be compared to spatial data of a large number of physical and biotic factors commonly used in modern ecology. The main challenge remains the paucity or absence of empirical data from Mexican border states, which the researcher will address in part through field studies and computerization of data.

Begun 1982. Ongoing. UCLA.

627. ‡John R. Whitaker (Dept. of Food Science and Technology, 1480 Chemistry Annex, UCD, Davis, CA 95616), Patricia Velasco (Dpto. de Bioquímica, Facultad de Química, UNAM, C.U., México, D.F. 04510)

Nitrogen Assimilation in Plants:
Nitrate Reductase of Barley

This investigation involves purifying nitrate reductase from barley seedlings; examining the chemical and physical characteristics of the nitrate reductase; and studying the mechanism of reduction of nitrate obtained from the soil to nitrite (the partial process of converting nitrate to ammonia for incorporation into proteins). It will also identify the parameters affecting the rate of reduction of nitrate to nitrite. The researcher is also studying the difference between the "light" and "dark" forms of Chlorella nitrate reductase and is comparing properties of the barley and Chlorella enzymes.

Begun Sept. 1980. EDC Sept. 1985. CONACYT/UCD.

VII

ENVIRONMENTAL STUDIES

628. Daniel W. Anderson (Dept. of Wildlife and Fisheries Biology, UCD, Davis, CA 95616)
Ecological and Pollution-related Studies of Wildlife: Aquatic Habitats in the Gulf of California and Mainland Mexico

This project continues the ecological studies on birds begun by the researcher in 1971. Now focusing on the Gulf of California, the studies are being carried out under cooperative agreements with CICESE and UABCS. These studies will establish baseline data and will allow the researcher to evaluate levels and effects of agricultural pollutants on migratory waterbirds and seabirds and to provide management recommendations for wildlife conservation in Mexico. The studies include sampling, banding, and color marking to study migration; breeding-season surveys at sea and at nest site to evaluate population parameters; behavioral studies; etc.

Begun 1970. Ongoing. UC/U.S. Fish and Wildlife Service/UNAM/CONACYT. Publications: D. W. Anderson, "Seabirds," in *The Biogeography of the Islands in the Sea of Cortez*, eds. T. J. Case and M. Cody (Berkeley, Calif.: Univ. of California Press, 1983); D. W. Anderson, F. Gress, and K. F. Mais, "Brown Pelicans: Influence of Food Supply on Reproduction," *Oikos* 39 (1982); D. W. Anderson and J. O. Keith, "The Human Influence on Seabird Nesting Success: Conservation Implications," *Biological Conservation*, 1980.

629. Howard G. Applegate (Center for Inter-American and Border Studies, UTEP, El Paso, TX 79968)
Air Pollution in the Chihuahuan Desert

This study, which examines the use of insecticides in the Chihuahuan Desert, covers both urban and agricultural applications, amounts and types of insecticide being applied, and method and time of application. The researcher will also examine concentrations of insecticides in human tissue and blood, as well as their possible health effects.

Begun 1979. EDC indefinite. Oscar Lorenzo Memorial Fund.

630. ‡Howard G. Applegate (Center for Inter-American and Border Studies, UTEP, El Paso, TX 79968), Robert G. Gray (Dept. of Planning, City Hall, El Paso, TX 79901)
Vehicle Exhaust Emissions in El Paso-Cd. Juárez

This project involves estimating the total vehicular emissions of carbon monoxide and hydrocarbons in El Paso, Texas and Cd. Juárez, Chihuahua. The age of the vehicles, type of fuel used, driving habits, miles per year on the road, and average rate of speed have been factored into equations to determine the amounts of the emissions by vehicles in each city and among those waiting to cross the international bridges. The researchers are now including socioeconomic costs in calculations of how to bring emissions down to a point where they cannot be considered health hazards.

Begun Jan. 1982. Ongoing. Publications: "Analysis of El Paso Air Quality Data Base for Nonattainment Penalties" (El Paso, Tex.: City of El Paso); "Motor Vehicle Exhaust Emissions in El Paso-Cd. Juárez" (El Paso, Tex.: City of El Paso).

631. ‡Howard G. Applegate (Center for Inter-American and Border Studies, UTEP, El Paso, TX 79968), José F. Rincón Valdez (Campo Agrícola Experimental Zacatecas, A.P. 18, Calera, Zac. 98500)
Insecticides and Environment in Northern Mexico

This study examines the effects of insecticides in the northern states of Mexico, especially the border region.

Begun May 1984. Ongoing.

632. C. Richard Bath (Dept. of Political Science, UTEP, El Paso, TX 79968)
Environmental and Resource Issues in United States-Mexico Relations

This systematic study of the role of environmental and resource issues in United States-Mexico relations delineates the most important factors in those relations, including governmental structures, interest groups, the legal and administrative framework, and the role of these issues in overall United States-Mexico relations. Topics to be covered include air pollution, water use and quality, land use, hazardous and toxic substances, law of the sea and maritime issues, minerals, and petroleum.

Begun Sept. 1983. EDC Sept. 1985.

633. Jorge H. Carrillo Viveros (CEFNOMEX, Abelardo Rodríguez 21, Zona del Río, Tijuana, B.C.N. 22320)
Liquid and Solid Toxic Wastes in the Border Region

This inventory of toxic wastes along Mexico's northern border comprises three stages of study which correspond to the following three items of interest: the amounts of toxic wastes generated by industrial and agricultural activities, where they are dumped, and how they are transported to dump sites; the authority and activities of public administration regarding the toxic waste question; and major incidents involving toxic wastes along the border. Regarding the first two items, the study will report the current situation, whereas information on toxic waste incidents dates from 1980 to the present. Principal data sources for this study are municipal, state, and federal public agencies, as well as interviews with persons working at factories and dump sites. The researcher hopes to develop a model to explain the toxic waste problem and solutions to it which have been attempted.

Begun July 1984. EDC Dec. 1985. CEFNOMEX/SDSU. Publications: "Internationalization of Capital and the U.S.-Mexico Border Zone," in *Current Economic and Financial Issues of the North American and Caribbean Countries*, ed. Edgar Ortíz (México, D.F., 1983); J. Carrillo, comp., *Industria internacional y maquiladoras* (México, D.F.: SEP-CEFNOMEX, forthcoming); J. Carrillo and M. Jasís, "Daños a la salud en mujeres obreras en plantas maquiladoras," in *Ecología y medio ambiente en la frontera México-E.U.* (México: CEFNOMEX-UCLA, forthcoming).

634. ‡Susan M. Deeds (Latin American Area Studies, Univ. of Arizona, Tucson, AZ 85721), ‡Robert G. Varaday (Office of Arid Lands Studies, Univ. of Arizona, 845 North Park Ave., Tucson, AZ 85719)

Smelting-related Policy in the Arizona-Sonora Borderlands

This study will include research on air quality in the border region; the monitoring of pollutant deposition and meteorology; the economics of copper smelting and smelter pollution control; technologies of pollution control in the copper-smelting industry; the environmental, health, social, and economic impacts of smelter operations; and policy precedents for an international agreement on copper smelting, including laws, institutions, programs, and standards. Research results will be presented at a U.S.-Mexico policy conference on the control of smelter pollution from Douglas, Arizona and Cananea and Nacozari, Sonora.

Begun May 1984. EDC May 1985. EPA Region 9/Arizona Dept. of Health Services.

635. ‡Gilberto Flores Muñoz, ‡Efraín Abraham Gutiérrez-Galindo (Instituto de Investigaciones Oceanológicas, UABC-Ensenada, A.P. 453, Ensenada, B.C.N.)

Hydrocarbon-Chlorine and Trace-Mineral Pollution along Baja California's Northwest Coast

This study of pollution in northwest Mexico is sponsored by the Instituto de Investigaciones Oceanológicas, in cooperation with the California Department of Fish and Game and CICESE. The researchers analyze the degree, extension, and spatial and seasonal variations of hydrocarbon chlorines and heavy metals polluting a 300-kilometer stretch of ocean between the U.S.-Mexico border and Bahía San Quintín. Their studies have established reference points for future research on key contaminants and have provided valuable information to both public and private agencies interested in the prevention and control of pollution along Baja California's northwest coast.

Begun Jan. 1982. Ongoing. SEP. Publications: "DDT en el ostión *Crasostrea gigas* (Thunberg) cultivado en Bahía San Quintín, Baja California, México," *Ciencias Marinas,* forthcoming; "Concentraciones de mercurio total en el mejillón *Mytilus californianus* (Conrad) de la costa noroccidental de Baja California, México," *Ciencias Marinas,* forthcoming.

636. Haynes C. Goddard (Dept. of Economics, Univ. of Cincinnati, Cincinnati, OH 45221)

The Use of Economic Incentives for Environmental Protection in Mexico

This project will provide a review and assessment of the advantages and disadvantages of various economic instruments available as incentives for environmental protection in Mexico. The study will compare and contrast the use of the instruments in both developed- and developing-country contexts.

Begun Sept. 1984. EDC fall 1985.

637. Carlos B. Graizbord Ed (Dpto. de Planificación Urbana y Ambiental, CEFNOMEX, Abelardo Rodríguez 21, Zona del Río, Tijuana, B.C.N. 22320)

Assessment of Soil Use in the Transborder Region

This study assesses normative soil use based on ecological criteria. Following this preliminary level of analysis, the researcher will address questions of soil use on a second level of analysis, from a perspective which considers other criteria, including the perceptions and preferences of the many interest groups involved in determining soil use in the border area.

Begun Oct. 1984. EDC 1985. CEFNOMEX.

638. ‡Tee Lamont Guidotti (Faculty of Medicine, 13-103 Clinical Sciences Bldg., Univ. of Alberta, Edmonton T6G2G3, Alberta, Canada), John B. Conway (Graduate School of Public Health, SDSU, 6505 Alvarado Rd., San Diego, CA 92182)

Toxic Substances Sites and Sources in the Borderlands

Information about the nature, distribution, and hazards of the storage sites and sources of generation of toxic substances along either side of the U.S.-Mexico border is scarce and poor. Data on Mexican sources and sites are incomplete, anecdotal, and subject to rapid change as a result of economic development, while those sites and sources on the U.S. side are often inaccurate, biased by regulatory purposes, and suspected of understatement, given evidence and allegations of substantial illegal transport and dumping of toxic wastes. In conjunction with collaborators at CEFNOMEX, the researchers are compiling available data from government, scientific, commercial, and journalistic sources in an attempt to piece together a picture of the problem which will identify major gaps requiring targeted studies. The results of this investigation will form a chapter in the projected volume on environmental hazards in the UCLA Atlas of the Borderlands, now in preparation.

Begun June 1982. EDC Dec. 1984. Cowell Foundation. Publications: T. L. Guidotti, "San Diego's Community Right-to-Know Ordinance: Case Study of a Local Approach to Hazardous Substances Control," *Journal of Public Health Policy,* forthcoming; T. L. Guidotti, "Toxic Substances in the San Diego-Tijuana Conurbation," in *Proceedings of the 1983 UCLA Conference on Borderlands Environmental Hazards,* forthcoming.

639. ‡Jorge Legorreta Gutiérrez, Víctor Manuel Castañeda Saldivar
(CECODES, Altadena 8, Col. Nápoles, México, D.F. 03810)
Public Transportation in Mexico City:
Its Operation and Environmental Impact

This study examines the public transportation system in Mexico City and identifies factors which might reduce its negative impact on air quality, hypothesizing that increasing air pollution levels result from the mechanical inefficiency of public transportation vehicles and the government's decreasing control of the system. The researchers draw information from published official data and from interviews with public and private individuals actively involved in the problem.

Begun Jan. 1983. EDC Dec. 1984. CECODES.

640. Alan J. Mearns (Pacific Office, Ocean Assessment Division, NOAA,
7600 San Point Way N.E., Seattle, WA 98115)
Status and Trends of PCBs and DDT along the West Coast

This project involves summarizing published and unpublished data on concentrations of PCBs and DDT in marine life from Central America to Alaska to determine spatial trends, association with waste inputs, and temporal trends during the past 20 years. Although source control was implemented in the early 1970s, marine fish, shellfish, birds, and mammals continue to be contaminated with DDT and PCBs along the coast from northern Baja California to Vancouver, British Columbia. The least contaminated biota occur in the eastern tropical Pacific Ocean.

Begun Mar. 1984. EDC Dec. 1984. NOAA.

641. Stephen P. Mumme (Dept. of Political Science, Colorado State Univ.,
Fort Collins, CO 85023)
Air Quality Disputes along the U.S.-Mexico Border:
The Cananea Copper Controversy

This study of air quality problems resulting from industrial pollutants along the U.S.-Mexico border centers on the area along the Arizona-

Sonora border known as the "gray triangle." It focuses on political and diplomatic aspects of the pollution problem and on the potential for achieving a binational agreement that satisfies relevant interests in both countries.

Begun Jan. 1984. EDC June 1985. Publication: "The Cananea Copper Controversy: Lessons for Environmental Diplomacy," *Inter-American Economic Affairs* 38:1 (summer 1984).

642. ‡Stephen P. Mumme (Dept. of Political Science, Colorado State Univ., Fort Collins, CO 85023), ‡Joseph Nalven (10966 Vallder-mosa Lane, San Diego, CA 92124)

National Perspectives on Environmental Hazards in the U.S.-Mexico Borderlands

This research project will comprise the introduction to the volume on environmental hazards in UCLA's U.S.-Mexico Borderlands Atlas. The study surveys environmental problems along the border and provides an introduction to the administrative, legal, political, and perceptual issues involved in resolving these problems.

Begun Sept. 1983. Completed 1984. Center for Latin American Studies, UCLA. Publication: "Environmental Hazards: National Perspectives" (Paper presented at the 26th Annual Conference of the Western Social Science Association, San Diego, Calif., April 1984).

643. ‡Cyril Parkányi (Dept. of Chemistry, UTEP, El Paso, TX 79968), Abdou Osman Abdelhamid (Dept. of Chemistry, Univ. of Cairo, Giza, Egypt)

Photodegradation of Pesticides in Arid Regions

During application, various pesticides are present in water droplets in the air which are deposited on plant and soil surfaces. If these compounds are volatile, they are eventually released into the atmosphere and/or they can be leached through soil to end up in surface or underground water. Once in water, they can evaporate into the atmosphere or, on the other hand, be redistributed to soil or water. Thus, the environmental photochemistry of pesticides represents a very complex problem because they can interact with numerous environmental components. In arid regions with high insolation (e.g., the U.S.-Mexico border areas), pesticides can undergo photodegradation in the presence of sunlight. The decomposition products formed can be more or less toxic than the original pesticides. This study is focusing on the photochemical decomposition of 2-mercaptobenzothiazole and 2-mercaptobenzimidazole under controlled laboratory conditions.

Begun 1983. EDC indefinite. Robert A. Welch Foundation.

644. Luis Sánchez de Carmona (Secretaría de Desarrollo Urbano y Ecología, Av. Constituyentes 947, México, D.F. 01110)
Border Ecoplan

This project proposes to construct an information and analysis system regarding regional environmental impacts along the U.S.-Mexican border. This system will facilitate decision-making about future border-area programs and projects and will provide feedback mechanisms for internally updating the system. The proposed system includes the already existing ecoplans of Mexico's border states and *municipios*, but it integrates them with data from the U.S. side and deepens their level of analysis. Input to the information system will include computerized data from Landsat and impact analyses of current urban development programs.

To being 1985. EDC indefinite.

645. Stephen J. Sellers (Dept. of Political Science, UCSB, Santa Barbara, CA 93106)
U.S.-Mexico Environmental Relations

In recent years, growing transboundary environmental problems have motivated the United States and Mexico to express interest in jointly solving such problems as air, water, and marine pollution, as well as sewage disposal and hazardous wastes problems. In order to so cooperate, decision-makers must overcome the significant social, economic, legal, and political differences between the two nations. This study analyses how these differences inhibit the ability of the two governments to solve their shared environmental problems. It draws information from secondary sources, government documents, and interviews.

Begun Sept. 1984. EDC Sept. 1985.

VIII

HEALTH STUDIES

646. Elizabeth J. Allen (Dept. of Communicative Disorders, SDSU, San Diego, CA 92182)
Effective Timing of Surgery for Individuals with Cleft Palate

This study analyzes the speech characteristics of individuals with cleft palate prior to and following surgical intervention. This analysis involves the administration of hearing tests (including impedance measures), examination of oral structures, and tape recording of speech samples. Part of a multidisciplinary team effort undertaken through the Division of Plastic Surgery at UCSD Medical Center, the project will attempt to determine whether early surgery (prior to the development of speech) prevents maladaptive speech behaviors, since no speech therapy is available for this population.

Begun Oct. 1975. Ongoing. Charles Woods Fund.

647. ‡Elizabeth J. Allen (Dept. of Communicative Disorders, SDSU, San Diego, CA 92182), ‡Julia Hobbs (Speech and Language Associates, 11600 Wilshire Blvd., Suite 224, Los Angeles, CA 90025)
Developing Speech Therapy Skills among Paraprofessionals Participating in an International Cleft Palate Team

Through this project, North American speech pathologists experienced in the area of cleft palate and craniofacial disorders demonstrate diagnostic and remediation procedures for Mexican paraprofessionals. Affiliated with the Division of Plastic Surgery at UCSD, the North Americans also design remediation programs to be executed by paraprofessionals or parents in a home program, evaluate client progress, and modify treatment as needed. The program includes instructional seminars for both paraprofessionals and parents upon each visit, and the researchers are developing materials for use in the absence of experienced speech pathologists.

Begun Oct. 1983. Ongoing. Charles Woods Fund.

648. ‡Howard G. Applegate (Center for Inter-American and Border Studies, UTEP, El Paso, TX 79968), Kieth Redetzke (Dept. of Biology, UTEP, El Paso, TX 79968)
Environmental Contamination and Human Health in the Borderlands

The researchers have measured concentrations of chlorinated hydrocarbon insecticides in the tissue and blood of persons from El Paso, Texas and Cd. Juárez, Chihuahua. Continuing elements of the study include determining the level of concentration of these compounds in human milk and the blood of nursing infants and the possible effects of the compounds on infant development.

Begun Sept. 1980. Ongoing. Publications: K. A. Redetzke, A. A. Gonzales, and H. G. Applegate, "Organochlorine Pesticides in Adipose Tissue of Persons from Cd. Juárez, México," *Journal of Environmental Health* 46:1 (1983):25-27; M. L. Mossing, K. A. Redetzke, and H. G. Applegate, "Organochlorine Pesticides in Blood of Persons from El Paso, Texas," *Journal of Environmental Health*, forthcoming; A. A. Gonzales, K. A. Redetzke, and H. G. Applegate, "DDT-Type Compounds in Blood of Persons from Cd. Juárez, Mexico," *Journal of Environmental Health*, forthcoming.

649. ‡José Luis Arredondo García (Laboratorio de Investigación en Infectología, Instituto Nacional de Pediatría, Insurgentes Sur 3700, Col. Insurgentes Cuicuilco, A.P. 101-90, México, D.F. 04530), ‡José Ignacio Santos, ‡Joseph J. Vitale (Institute of Pathology, Boston Univ. School of Medicine, Boston, MA 02118)

A Study of the Interactions among Nutritional Status, Immune Functions, and Infectious Diseases

This investigation will attempt to define abnormalities in components of the host defense mechanisms of malnourished children when such abnormalities predispose the sufferer to infections of the respiratory tract and/or affect recovery from such afflictions. The study will enroll children between one and five years of age judged by clinical and laboratory data to be malnourished and having an acute viral or bacterial infection of the lower respiratory tract. The investigators will carry out nutritional assessments as well as immune-function tests at the time of admission and at varying intervals during recovery. They will also study, in a prospective manner, the role of specific body defenses and nutritional status as predictive factors for host susceptibility to respiratory infections. By developing a better understanding of the association among nutritional status, immune function, and risk of infectious diseases, this project will assist in devising adjunctive treatment regimens for specific infections.

Begun June 1983. EDC June 1985. The Thrasher Research Fund.

650. Roberta D. Baer (Dept. of Anthropology, Univ. of South Florida, Tampa, FL 33620)

Social and Cultural Correlates of Dietary Problems

This research explores the social and cultural changes associated with rural-to-urban and international migration and the effects of these changes on food consumption patterns and dietary adequacy. It will attempt to determine what other factors besides income (such as rural or urban residence, prestige, material culture, ethnicity, women's roles, and nutritional knowledge) explain changes in food consumption patterns. The study begins with a baseline in a rural Sonoran village with significant mild-to-moderate malnutrition and follows migrants from this region to Hermosillo, Sonora and to Tucson, Arizona. Through this study the researcher hopes to disclose more fully the role of social and cultural variables in food consumption patterns.

Begun Sept. 1982. EDC June 1986. International Food Policy Research Institute/CIAD/Comins Fund/Tinker Foundation. Publications: "Commercial Agriculture and Nutritional Status," *Culture and Agriculture* 21 (fall 1983); "The Interaction of Social and Cultural Factors Affecting Dietary Patterns in Rural and Urban Sonora, Mexico" (Ann Arbor, Mich.: University Microfilms, 1984); R. D. Baer and P. Wong, "Household Income, Women's Work, and Dietary Adequacy" (Paper presented at the 11th International Congress of Anthropological and Ethnological Sciences, Vancouver, B.C., 1983).

651. ‡M. Audrey Burnam, ‡Javier I. Escobar, ‡Richard L. Hough, ‡Marvin Karno, ‡Dianne M. Timbers (Dept. of Psychiatry, Neuropsychiatric Institute, UCLA, 760 Westwood Plaza, Los Angeles, CA 90024)
Epidemiologic Catchment Area — L.A., Hispanics and Anglos

Based on structured interviews with 3000 household and 500 institutional residents in two Los Angeles communities, this study is designed to estimate the prevalence and annual incidence of specific mental disorders listed in the third edition of the Diagnostic and Statistical Manual of the American Psychiatric Association. About half the sample is Hispanic and about 40% of Hispanic respondents are being interviewed in Spanish. The researchers are gathering additional data concerning experiences of sexual assault, use of health and mental health resources, acculturation, social support, life strain, and coping. Built around the Diagnostic Interview Schedule sponsored by the National Institute of Mental Health, the interview was translated into Spanish and field tested for reliability and comparability with the English version prior to its use in the main study.

Begun Jan. 1981. EDC Dec. 1984. NIMH. Publications: M. Karno, M. A. Burnam, J. I. Escobar, R. L. Hough, and W. W. Eaton, "Development of the Spanish Language Version of the NIMH Diagnostic Interview Schedule, *Archives of General Psychiatry* 40 (1983):1183-1188; A. Burnam, M. Karno, R. Hough, J. I. Escobar, and A. Forsythe, "The Spanish Diagnostic Interview Schedule: Reliability and Comparison with Clinical Diagnoses," *Archives of General Psychiatry* 40 (1983):1189-1196.

652. ‡Ricardo O. Castillo (Dept. of Nutrition, 119 Morgan Hall, UCB, Berkeley, CA 94720), ‡Fernando S. Mendoza (Dept. of Pediatrics, Stanford Univ. School of Medicine, 520 Willow Rd., Palo Alto, CA 94304)
Nutritional Status of Mexican-American Children in the United States

This follow-up report of a study on the nutritional status of Mexican-American children in the United States utilizes the National Health and

Nutrition Examination Survey I (1971-74) to compare the growth of 341 Mexican-American children with that of 6700 non-Hispanic children aged 1-19 years. The previous study showed that Mexican-American children in this survey were one-half standard deviation shorter than non-Hispanic children, and their weights at a given age were the same as those of non-Hispanic children. The mean weight-height ratio of Mexican-American children was 57%, suggesting pervasive obesity. Further evaluation indicates that socioeconomic status significantly influences these findings, with children from families below the poverty line demonstrating significantly shorter stature, lower weight for age, and a higher quetelet index (wt.ht.^{2}) than do non-Hispanics. Hispanic children from families above the poverty line had normal stature, weight, and quetelet measures. Measurements of 24-hour calorie counts controlled for age and sex reveal socioeconomic differences but not ethnic differences. Further research will continue to explore the effects of socioeconomic status on the nutritional status of Mexican-American children.

Begun Aug. 1983. Ongoing.

653. ‡Edwin L. Cooper (Dept. of Anatomy, School of Medicine, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024), J. A. Ramírez Almaraz (División de Imunología Comparada, Ciencias Biológicas, Instituto Politécnico Nacional, Santo Tomás, México 17, D.F.)

Comparative Immunology

This cooperative research project involves Mexican scientists in investigating the origins of various components of the immune system and includes exchanges with the División de Investigación of the Dirección de Graduados e Investigación, Instituto Politécnico Nacional, Mexico City.

Begun 1966. Ongoing. Mexico and U.S. governmental agencies.

654. ‡Wayne A. Cornelius, Leo R. Chávez (Center for U.S.-Mexican Studies, D-010, UCSD, La Jolla, CA 92093), Oliver W. Jones (School of Medicine, UCSD, La Jolla, CA 92093)

Local-Level Impacts of Mexican Immigration

This comprehensive study of social and economic consequences of Mexican immigration places special emphasis on health problems and health-service utilization. Primary data sources include personal interviews with 2,100 Mexican immigrants (males and females, legal and undocumented) living in San Diego County, as well as interviews with health-care providers and administrators.

Begun Sept. 1980. EDC Dec. 1984. California Policy Seminar/UC-San Diego Academic Senate/UC MEXUS. Publications: W. A. Cornelius, "Interviewing Undocumented Immigrants: Methodological Reflections Based on Fieldwork in Mexico and the U.S.," *International Migration Review* 16:2 (1982); O. W. Jones, "Health Care for California's

Undocumented Mexican Immigrants," Occasional Papers of the Division of Medical Genetics, vol. 1, no. 1 (La Jolla, Calif.: UC-San Diego, 1981); W. A. Cornelius, L. R. Chávez, and O. W. Jones, "Health Problems and Health-Service Utilization among Mexican Immigrants: The Case of San Diego" (La Jolla, Calif.: Center for U.S.-Mexican Studies, UC-San Diego, submitted).

655. Adela de la Torre (Dept. of Business and Economics, Colorado College, Colorado Springs, CO 80903)
Maternal and Infant Health Care of Seasonal Farmworkers in California

This researcher has conducted interviews concerning prenatal health, nutrition, postpartum care, and infant care with a sample of 150 primarily Mexican women in three agricultural counties of California – San Joaquín, Stanislaus, and Tulare. The researcher has tentatively hypothesized that inadequate prenatal, postpartum, and infant care can be attributed to low utilization rates of federal programs and medical services, as well as to the large influence of custom on maternal and infant health care. The written report of the study compares the findings of this survey with those of two other health studies, one administered in Tulare County and the other in San Diego County.

Begun June 1984. Ongoing. Chapman Fund, Colorado College. Publication: "Maternal and Infant Health Care of Seasonal Farmworkers in California," submitted.

656. Kathryn G. Dewey (Dept. of Nutrition, UCD, Davis, CA 95616)
Weight-Control Attitudes and Practices among Mexican-Americans in Northern California

Because previous studies have indicated a high incidence of obesity among Mexican-Americans, the researcher has begun a project to assess food habits, attitudes, and practices with regard to weight control among migrant and nonmigrant Mexican-Americans in northern California. The study will focus on some of the factors related to weight gain in this population, and the researcher will attempt to introduce the concepts of behavior modification and appropriate food choices in an informal program of nutrition education among study participants. The project will involve several home visits with each participant by a bilingual interviewer experienced in nutrition counseling.

Begun May 1983. EDC Dec. 1984. UC Hatch funds.

657. ‡Kathryn G. Dewey, Sharon P. Amon (Dept. of Nutrition, UCD, Davis, CA 95616)

Obesity as a Risk Factor for Cardiovascular Disease and Diabetes among Mexican-American Women

This project will characterize obesity among a sample of 100-200 adult Mexican-American women through a complete anthropometric workup and will determine the relationships between body composition and plasma triglycerides, cholesterol, lipoproteins, blood glucose, and blood pressure. The researchers will attempt to determine how best to define obesity in this population and to identify the measure(s) of body composition most predictive of cardiovascular disease and diabetes.

Begun June 1984. EDC June 1985. UC Hatch funds.

658. ‡Kathryn G. Dewey, ‡Lucia L. Kaiser (Dept. of Nutrition, Everson Hall, UCD, Davis, CA 95616)

The Nutritional Impact of Household Economic Strategies in Rural Mexico

This research aims at evaluating the nutritional impact of different household economic strategies and patterns of resource allocation among rural households in the state of Guanajuato. The study will compare nutrition among households that have differential access to key resources, especially irrigation; rely to varying degrees on home-produced foods rather than purchased foods as a result of their particular economic strategy; and impart varying decision-making roles to women. To conduct these comparisons, the researchers will, over a one-year period, collect data on socioeconomic factors, home food production, expenditures, dietary patterns, and nutrition and health status. A large sample of households, selected at random from three representative communities in the Bajío of Guanajuato, will be interviewed using questionnaires. Subsamples from this group will be contacted at intervals to collect additional information on resource allocation, diet, and nutritional status. The study will enable policymakers to predict more accurately the impacts of policy on the nutrition and household-level parameters of specific target groups.

To begin May 1985. EDC July 1986. SSRC.

659. ‡Jack C. Fisher (Division of Plastic Surgery, UCSD Medical Center, 225 Dickinson St., San Diego, CA 92103), Kenneth Lyons Jones (Dept. of Pediatrics, UCSD Medical Center, 225 Dickinson St., San Diego, CA 92103)

Patterns of Human Malformation in Baja California Sur

The researchers have undertaken comprehensive studies of birth-related deformities in an isolated Latin American population. The project emphasizes differentiation of malformation, deformation, and intra-uterine vascular disruption. A registry of children with recorded birth defects will serve as the basis for establishing a better understanding of the pathogenesis and preservation of birth defects, and it will lead to the inauguration of genetic counseling services and reconstructive surgery for children living in this region. Studies completed thus far indicate that the incidence of cleft lip and palate is no higher in Mexico than in the U.S.

Begun Oct. 1983. Ongoing. Charles Woods Fund.

660. ‡Robert H. Friis (Dept. of Medicine/California College of Medicine, UCI, 101 City Drive South, Rt. 81, Orange, CA 92668), G. Nanjundappa (Dept. of Sociology, California State Univ., Fullerton, CA 92634)

Diabetes and Cardiovascular Disease among Hispanics: Psychosocial Aspects

Diabetes has a multifactorial etiology in which psychosocial variables may play a contributing role. This study employs a multivariate model to explore how particular psychosocial factors may pertain to the etiology of diabetes and mechanisms for coping with the disease. The present research focuses on the relationship among psychosocial variables, Hispanic ethnicity, and diagnosis as a diabetic patient. The research setting is a primary-care clinic in urban southern California, and the study group consists of currently active diabetes patients willing to participate in the research, with a non-diabetic comparison group matched on age, sex, and ethnicity. Subjects complete an extensive interview (in Spanish or English) which supplies data for comparative and multivariate analyses by ethnic group and for cases and controls. The researcher will identify the implications of the study's findings for diabetes etiology and for methods of coping with the disease.

Begun Sept. 1982. Ongoing. UCI Minority Mentors Program. Publications: "Diabetes, Depressions, and Hispanic and Non-Hispanic Ethnicity" (Presentation at the Borderlands Scholars Meeting, San Diego, Calif., Apr. 1984); "Diabetes and Depression among Mexican-Americans and Anglos," submitted.

661. ‡Dawn S. Gettman (School of Social Work, UT-Austin, Austin, TX 78712), Devon Gerardo Peña (Dept. of Sociology, Colorado College, Colorado Springs, CO 80903)

Women, Mental Health, and the Workplace

This comparative study of electronic and garment industry workers in Mexico and the United States focuses on the relationship between workplace organization and the incidence of stress and psychogenic disorders among assembly workers. One of the study's key hypotheses is that gender relations are closely associated with work-related stress. The initial research design and literature review are near completion.

Begun May 1983. Ongoing. Publication: "Women, Mental Health and the Workplace: Research Issues and Challenges in a Transnational Setting," submitted.

662. ‡José C. Guemez-Sandoval, Norma M. de León-Medina (Dpto. de Biología Experimental y Aplicada, Centro de Investigaciones Biológicas de Baja California Sur, A.P. 128, La Paz, B.C.S 23000)
Hereditary Spherocytosis

Hereditary spherocytosis, a hematologic disease, is highly prevalent in a rural community in the state of Baja California Sur. This investigation began with the detection of all cases, followed by an analysis of the distribution of the disease by family groups, an aspect of the research which has helped in the identification of patients who need surgical treatment (splenectomy). The researchers have in all cases provided genetic counseling aimed at preventing more cases of hereditary spherocytosis.

Begun Nov. 1980. EDC indefinite. SPP. Publications: J. Guemez-Sandoval and J. A. Cañedo Colado, "Esferocitosis familiar hereditaria: estudio en una zona rural de Baja California Sur," *Salud Pública de México* 25:3 (May-June 1983):279-284; F. Cardoza-Macías, J. C. Guemez-Sandoval, R. Cardoza-Macías, N. M. de León-Medina, J. A. Martínez-Salcedo, and F. García-Rodríguez, "Tratamiento quirúrgico en el esferocitosis familiar hereditaria," *Revista de Investigación Clínica*, submitted.

663. ‡José C. Guemez-Sandoval, Norma M. de León-Medina (Dpto. de Biología Experimental y Aplicada, Centro de Investigaciones Biológicas de Baja California Sur, A.P. 128, La Paz, B.C.S. 23000)
Birth Weights and Maternal Variables in Baja California Sur

This study examines the birth weights of children born in La Paz, B.C.S. and some maternal variables that can affect them. The researchers intend to construct percentile tables for the birth weights of children born in this city, since the La Paz area differs markedly in this statistic from other regions of the country. This can be due to many factors: geographic location, economic status, social customs, and the genetic traits of the people who first colonized the peninsula.

Begun Dec. 1981. EDC indefinite. SPP. Publication: J. C. Guemez S., G. Farías N., J. A. Cañedo C., N. M. de León M., and J. A. Molina Guarneros, "Caracterización del peso normal del recién nacido a término en la ciudad de La Paz, Baja California Sur e incidencia de algunas variables maternas en este parámetro," *Salud Pública de México*, submitted.

664. ‡Rafael C. Guzmán (Dept. of Social Science, Merrill College, UCSC, Santa Cruz, CA 95064), ‡Antonio R. Velasco (1332 Natividad Rd., Suite C, Salinas, CA 93906)
International Migration and Health Care in the Pajaro Valley of California

Workers who migrate between Gómez Farías, Michoacán and Watsonville, California experience high levels of lost social services and medical attention. Ignorance and fear of both Mexican and United States governmental agencies contribute to their failure to request attention from bureaucrats and medical personnel. These conditions result in the persistence in this population of illnesses now considered defeated (e.g., tuberculosis) and in severe conditions of social alienation. To test conditions of social-service and medical denial, the researchers sampled 136 Gómez Farías households between December 1983 and March 1984, prior to the departure of these families for Watsonville. (The respondents live and work in strawberry fields in both communities.) The interviews included questions about health, migration, insurance, use of social and medical services, most common illnesses, and differences between Mexico and U.S. in terms of social-service and health-care delivery systems.

Begun Nov. 1983. Ongoing. UCSC.

665. William H. Harris (Dept. of Health and Physical Education, UTEP, El Paso, TX 79968)
Pilot Program on Sexually Transmitted Diseases

Established in the spring of 1984, this program has thus far reached 355 students out of a population of 653 at the Centro de Estudios Tecnológicos No. 61 in Cd. Juárez, Chihuahua. A pretest (designed by the Texas Department of Health) on the subject of gonorrhea and syphilis revealed that the students had a very low level of knowledge about venereal diseases. After the pretest, UTEP students joined the medical team of the technological school in delivering six lectures which warned of the danger of contracting gonorrhea, syphilis, and pelvic inflammatory disease. This pilot program will be extended to other secondary schools in Cd. Juárez during the 1984-85 academic year, and the sponsors plan to implement the program in all the city's secondary and preparatory schools.

Begun Jan. 1984. Ongoing.

666. John Hedderson (Dept. of Sociology, UTEP, El Paso, TX 79968)
Hispanic Mortality in the United States

This study compares the life expectancies and cause-specific death rates of the Anglo and Spanish-surnamed populations of El Paso, Texas.

Begun May 1983. EDC June 1985. Publication: J. Hedderson and H. C. Daudistel, "Infant Mortality of the Spanish Surname Population," *The Social Science Journal* 19:4 (1982).

667. Mónica I. Jasís Silberg (CEFNOMEX, Abelardo Rodríguez 21, Zona del Río, Tijuana, B.C.N. 22320)
An Appraisal of Health-Service Utilization in Mexico's Northern Border Region

This analysis of the use of health services in the border region addresses health-care use by both Mexican and transborder populations, and it seeks to discover whether available services are sufficient to meet demand for health care in the area. Through a review of published data and analyses of the availability and use of such services by region, the researcher hopes to project the demand for health care centers over the next five years. The initial stage of research is being conducted in Tijuana.

Begun Mar. 1984. EDC Mar. 1985. CEFNOMEX. Publications: M. Jasís Silberg and J. Carrillo, "La salud de la mujer obrera en las plantas maquiladoras: el caso de Tijuana," *Enfermería Hoy* 4 (June 1983); M. Jasís Silberg and J. Carrillo, "Salud y mujeres en plantas maquiladoras," in *Proceedings of the Conference on Bioresources and Environmental Hazards of the U.S.-Mexico Borderlands*, 1983.

668. ‡René Alejandro Jiménez Ornelas, Eduardo Menéndez, Alberto Minujin Zmud, Gustavo Molina, Danuta Raj (IIS, Torre de Humanidades II, 9° piso, UNAM, C.U., México, D.F. 04510)
Infant Mortality in Different Social Groups

The researchers have combined the methodologies of sociodemography, social medicine, environmental studies, and anthropology in this attempt to provide a thorough understanding of the causes of infant mortality in different social groups. The project encompasses three stages of data collection: a sociodemographic survey, an epidemiological sampling, and in-depth interviews.

Begun May 1983. EDC Dec. 1984. IDRC/UNAM/CONACYT. Publication: R. Corona, R. Jiménez, and A. Minujin, *La mortalidad en México*, (México, D.F.: Instituto de Investigaciones Sociales, UNAM, 1982).

669. ‡Marvin Karno, Janis Jenkins (Dept. of Psychiatry, Neuropsychiatric Institute, UCLA, 760 Westwood Plaza, Los Angeles, CA 90024)
Course of Schizophrenia among Mexican Americans

This cross-cultural investigation compares the influence of familial expressed emotion (EE) upon the course of schizophrenic illness among Mexican Americans with the results of similar tests on British and Anglo-American subjects. A composite score of criticism, hostility, and/or emotional over-involvement expressed verbally by significant relatives toward schizophrenic family members, EE is measured by use of a semi-structured instrument called the Camberwell Family Interview (CFI). A high level of EE derives from a large number of critical comments, expressions of overt hostility, or indications of excessive and intrusive emotional concern, factors which are scored from audiotape recordings of the CFI. High EE scores on the part of even one significant relative have been found to portend a poor outcome during the nine-month post-hospital discharge period when the patient returns to live in the household. Because of the prominent role of the family and its solidarity in Mexican-American culture, the role of EE in Mexican-American households is an important element in schizophrenic outcome.

Begun Feb. 1980. EDC July 1985. Publication: J. H. Jenkins, M. Karno, A. de la Selva, and F. Santana, "Expressed Emotion in Cross-Cultural Context: Familial Responses to Schizophrenic Illness among Mexican-Americans," in *Treatment of Schizophrenia: Family Assessment and Intervention*, eds. J. M. Goldstein, K. Hahlweg, and I. Hand, forthcoming.

670. Robert M. Malina (Dept. of Anthropology, Burdine 336, UT-Austin, Austin, TX 78712)

Human Biology Studies in the Valley of Oaxaca

The initial phase of this project focused on the growth and nutritional status of school children in the Valley of Oaxaca. More recently, the researcher has undertaken a comprehensive analysis of data from a single rural community surveyed in 1968, 1978, and 1979. The data include anthropometric dimensions, demographic characteristics, and measures of physical performance. A number of issues are currently being examined, including the following: increments of growth (growth velocities) in this generally undernourished population; sibling similarities (an estimate of genetic influence) in growth status and rate; functional consequences of undernutrition as reflected in the strength and motor performance of school children; and sibling similarities in physical performance. An additional analysis focuses on socioeconomic differentials in the growth status of children within this seemingly single-class subsistence agricultural community. The study also includes analysis of data from other communities in Oaxaca, with a focus on other nutrition-related problems.

Begun 1968. Ongoing. NSF/Institute of Latin American Studies, UT-Austin. Publications: P. H. Buschang and R. M. Malina, "Growth in Height and Weight of Mild-to-Moderately Undernourished Zapotec Children," *Human Biology* 55 (1983); R. M. Malina and P. H. Buschang, "Growth, Strength and Motor Performance of Zapotec Children, Oaxaca, Mexico," *Human Biology*, forthcoming; R. M. Malina and B. B. Little, "Body Composition, Strength, and Motor Performance of Undernourished Boys," *Proceedings of Pediatric Work Physiology XI*, (Urbana, Ill.: Human Kinetics Publishers, forthcoming).

671. ‡Robert M. Malina (Dept. of Anthropology, Burdine 336, UT-Austin, Austin, TX 78712), ‡Antonio N. Zavaleta (Dept. of Social and Behavioral Sciences, Texas Southmost College, Brownsville, TX 78520)

Growth Status of Mexican-American Children

This study of the growth status of Mexican-American school children in Brownsville, Texas began in 1972, with a follow-up survey conducted in 1983. The data focus on height, weight, arm circumference, and the triceps fatfold of school children 6 through 17 years of age. At present, the researchers are focusing on short-term changes in body size and composition (fatness and leanness). The data indicate significant gains in size and fatness in younger children (aged 6-10 years), with less significant changes in the older children. The researchers are also comparing their data with those reported for a 1928 survey of the weights and heights of Spanish-American school children in Brownsville. Hence, the study also involves an examination of long-term secular changes in the weights and heights of children in a single school district. The presence or absence of long-term secular changes in growth status is often used as an indicator of health, nutritional, and economic conditions in an area. Presently in the analysis and writing stages, the reports of this research will be submitted for publication in late 1984 or early 1985.

Begun spring 1972. Ongoing.

672. ‡Dorothy S. Mull, ‡J. Dennis Mull (Dept. of Family Medicine, UCI, Irvine, CA 92717)

Studies of Health Beliefs and Practices among Mexican Undocumented Workers

The researchers' principal departmental clinic experiences 10,000 visits per year from Mexican nationals working in the U.S. In an effort to facilitate communication and improve medical care for this group, several studies are in progress, including studies of what patients have done before coming to see the doctor.

Begun June 1979. Ongoing. California Medical Education and Research Foundation. Publications: "*Empacho de Hombre:* A Mexican Folk Illness," *Medical Anthropology Newsletter* 12:3 (1981); "Residents' Awareness of Folk Medicine Beliefs of Their Mexican Patients," *Journal of Medical Education* 56 (1981); "A Visit with a *Curandero,*" *The Western Journal of Medicine* 139 (1983):730.

673. ‡Dorothy S. Mull, ‡J. Dennis Mull (Dept. of Family Medicine, UCI, Irvine, CA 92717)

Studies of Cost and Utilization of Health Care by Mexican Nationals in the U.S.

This study analyzes the records of a southern California clinic serving large numbers of Mexican nationals to identify possible relationships between changes in the cost of medical care and changes in the number of patient visits. The researchers hypothesize that the data may point to economic factors as important explainers of reportedly low health-care utilization rates among Mexicans in the U.S.

Begun June 1981. Ongoing. Publication: "Cost and Other Barriers to Health Care Utilization by the Indigent," *Family Medicine* 16 (1984):126.

674. ‡Dorothy S. Mull, ‡J. Dennis Mull (Dept. of Family Medicine, UCI, Irvine, CA 92717)

Cross-cultural Study of Attitudes toward Cancer and Cancer Symptoms

For this project, low-income, Mexican-born and U.S.-born cancer patients were interviewed in a university-run cancer clinic in southern California. The researchers attempted to identify possible cross-cultural and/or intracultural differences that might account for delays in seeking medical care for cancer. The data suggest ways in which such delays can be minimized (e.g., through educational programs based on the results of the study).

Begun 1982. Completed 1984. UC MEXUS.

675. ‡Dorothy S. Mull, ‡J. Dennis Mull (Dept. of Family Medicine, UCI, Irvine, CA 92717)

Studies of Morbidity and Mortality in the Mexican Sierra Madre

This archival study involves analysis of approximately 6,000 patient visits to a mission hospital in the Mexican Sierra Madre. The study will attempt to identify possible differences between Tarahumara Indian and non-Indian patients with respect to morbidity and mortality. It will focus on remediable health problems in the Indian population.

Begun June 1982. Ongoing. Publications: "Medicine in the Mexican Sierra Madre," *The Journal of Family Practice* 16:1 (1983); "*Algodoncillo:* White Sign of Danger," *Medical Anthropology Quarterly* 14:4 (1983); "Oral Rehydration Therapy: An Oasis of Hope in the Developing World," *The Journal of Family Practice* 18 (1984):485.

676. Johanna Shapiro (Dept. of Family Medicine, Irvine Medical Center, UCI, 101 City Drive South, Orange, CA 92668)

Coping Styles of Spanish-speaking Families with an Orthopedically Handicapped Child

This study examined personal, psychological, and physical health, social support systems, attitudes toward the disabled, perceived child adjustment, and perceived family functioning among 60 Spanish-speaking women of low socioeconomic status, 38 of whom had handicapped children and 22 of whom had nonhandicapped children. The study revealed no differences between the two groups in terms of physical health or levels of depression. However, the mothers of handicapped children perceived their children as significantly less well-adjusted than did the mothers of nonhandicapped children; they also had significantly poorer social support systems on which to rely. Mothers of nonhandicapped children had significantly more negative attitudes toward the disabled and minimized the stress to the family of a handicapped child as compared with mothers of handicapped children. Mothers of nonhandicapped children also engaged in significantly more parent-blame attributions regarding the cause of disability than did mothers of handicapped. Finally, the two groups differed significantly in terms of family function, with families of the handicapped appearing to avoid conflict more and be more tightly controlled than those of the nonhandicapped. In terms of coping with a handicapped child, mothers of nonhandicapped speculated that they would rely primarily on instrumental, active, problem-solving strategies; mothers of handicapped children favored more affiliative, emotion-focused strategies.

Begun Apr. 1981. Completed 1984. March of Dimes.

677. ‡Luz E. Shearer-Oropesa, ‡Charles W. Weber (Dept. of Nutrition and Food Science, Home Economics Bldg., Rm. 310, Univ. of Arizona, Tucson, AZ 85721)

Methylxanthine Levels in the Breast Milk of Lactating Women from Different Socioeconomic Classes

This project examines the levels of methylxanthine in the breast milk of women from different socioeconomic classes living in Tucson, Arizona. The researchers will evaluate women from two different socioeconomic classes and ethnic origins for xanthine intake levels and its concentration in their breast milk.

Begun Sept. 1983. EDC Jan. 1985.

678. ‡Robert D. Singer (Center for Research in the Social and Behavioral Sciences, UCR, Riverside, CA 92521), Juan José Sánchez Sosa (Facultad de Psicología, UNAM, C.U., México D.F. 04510)

Evaluating Effects of Televised Health Promotion in Mexico

This project uses television to promote preventive health care in Mexican and Chicano (especially first-generation immigrant) populations. This joint project of UC-Riverside, UNAM, and the Mexican Ministry of Health will utilize the Televisa network in Mexico and the Univision network of Spanish-language channels in the United States. The researchers will evaluate the campaign's effectiveness by conducting surveys after the telecasts take place. The telecasts will attempt to influence the target populations with regard to behavior related to health and mental health. The researchers have a special interest in influencing children in these populations directly and through their parents.

Begun July 1983. Ongoing. UCR-Mexico Group for Collaborative Research and Training.

679. Livingston D. Sutro (Dept. of Family and Community Medicine, College of Medicine, Health Sciences Center, Univ. of Arizona, Tucson, AZ 85724)

Alcoholics Anonymous in a Oaxacan Peasant-Indian Village

The Alcoholics Anonymous (AA) Program, a folk therapy developed in the United States for the disease of alcoholism, has had some success worldwide despite the barriers of culture and language. This ongoing examination of a functioning AA group in a Oaxacan peasant-Indian village focuses on the modifications and adaptations of the American program to fit the rural Oaxacan lifestyle better. The project, initiated in 1981 and carried out through participant observation and interview, will attempt to develop a model to explain the existence of such a program in this alien setting, which should in turn further our understanding of generally applicable sociopsychological determinants of the recovery process from alcoholism.

Begun Jan. 1981. EDC indefinite. Univ. of Arizona/Tinker Foundation. Publication: "The Alcoholics Anonymous Program as Practiced in a Mexican Peasant-Indian Village" (Paper presented at the 8th Annual Alcoholism Conference, El Paso, Tex.).

680. ‡Jack V. Toohey (Dept. of Health Science, Arizona State Univ., Tempe, AZ 85287), ‡Gloria J. Valenzuela (Family Health Center, P.O. Box 96, Casa Grande, AZ 85222)
Evaluating an Oral Rehydration Educator Program

This project consisted of designing a television education program in oral rehydration and comparing the effectiveness of this technique with a lecture-taught program. The programs were produced in English and Spanish and were presented to target populations of 20 adults in Casa Grande, Arizona and 20 adults in Mazatlán, Sinaloa. The television program was as effective as the personal lecture approach in teaching the skills of mixing oral rehydration solutions.

Begun Jan. 1982. Ongoing. Partners of the Americas.

681. ‡Charles W. Weber, ‡Susana Yensen-Bojorquez (Dept. of Nutrition and Food Science, Home Economics Bldg., Rm. 310, Univ. of Arizona, Tucson, AZ 85721)
The Nutritional Value of a Halophyte Plant:
***Distichlis palmeri* (Vasey)**

This study examined the utilization of the halophyte *Distichlis palmeri* for human consumption. Chemical and animal studies have suggested that the plant has very good potential for human utilization.

Begun Sept. 1982. Completed 1984.

IX

MARINE SCIENCES

682. Saúl Alvarez Borrego (Dpto. de Ecología Marina, CICESE, Av. Espinoza 843, Ensenada, B.C.N. 22830)
The Chemistry of Intertidal Waters in the Coastal Lagoons of Baja California

The researcher has designed and built pore water samplers for intertidal sediments so as to describe the dynamics of nutrients in pore waters and to estimate advection fluxes caused by tidal percolation. By generating time series, the researcher will attempt to estimate the characteristic fluctuation periods in the variability of the concentration of nutrients at different depths within the sediment.

Begun Jan. 1981. EDC indefinite. Mexican federal government. Publication: M. de J. Green Ruiz, S. Caschetto, and S. Alvarez Borrego, "Dissolved Silica in the Water Column and the Interstitial Waters of a Coastal Lagoon," *Ciencias Marinas* 9:2 (1983):51-74.

683. ‡Saúl Alvarez Borrego (Dpto. de Ecología Marina, CICESE, Av. Espinoza 843, Ensenada, B.C.N. 22830), Guadalupe Ballesteros (Escuela de Ciencias Marinas, UABC-Ensenada, A.P. 453, Ensenada, B.C.N.), Sergio Hernández (CICIMAR, A.P. 476, La Paz, B.C.S.), Daniel Lluch Belda (Centro de Investigaciones Biológicas de Baja California Sur, A.P. 572, La Paz, B.C.S. 23000), Giovanni Malagriño (Area de Ciencias Marinas, UABCS, A.P. 219, C.U., La Paz, B.C.S. 23000), William A. Nierenberg (SIO, A-010, UCSD, La Jolla, CA 92093)
Centers of Investigation of Baja California and the Scripps Institution of Oceanography (CIBCASIO)

CIBCASIO is a fellowship of graduate and undergraduate research institutions consisting of the Scripps Institution of Oceanography, CICESE in Ensenada, Escuela Superior de Ciencias Marinas, Universidad Autónoma de Baja California (UABC) in Ensenada, Centro de Investigaciones Biológicas in La Paz, UABC Sur in La Paz, and the Centro Interdisciplinario de Ciencias de Mar (CICIMAR) in La Paz. This group meets annually at a rotating site to disseminate and share data and ideas on research of common interest. These contacts often result in the development of independent collaboration among U.S. and Mexican scientists.

Begun 1974. Ongoing. Publication: *CIBCASIO Transactions* (report of the annual CIBCASIO meeting, published irregularly).

684. ‡Saúl Alvarez Borrego, Gilberto Gaxiola Castro (Dpto. de Ecología Marina, CICESE, Av. Espinoza 843, Ensenada, B.C.N. 22830)

The Photosynthesis-Irradiance Relationship in the Phytoplankton of Mexico's Pacific Coast

This description of the photosynthesis-irradiance relationship of oceanic and coastal phytoplankton involves fitting the data to models and relating the change of parameters to environmental conditions. The researchers hypothesize that in coastal waters, light is the limiting factor for photosynthesis, while in oceanic waters turbulence and nutrients regulate photosynthesis.

Begun Jan. 1981. EDC indefinite. Mexican federal government. Publication: "Photosynthesis-irradiance Relationship for the Phytoplankton of Coastal Waters of Northwest Baja California," *Ciencias Marinas*, forthcoming.

685. ‡Luis Alvarez Sánchez, Reginaldo Durazo Arvizu (CICESE, Av. Espinoza 843, Ensenada, B.C.N. 22830)

Coastal Currents off Northwest Baja California

Marine scientists in the U.S. have given special attention to ocean currents in the Southern California Bight, but basic knowledge about water transport on the Mexican side of this oceanographic region is scarce or nonexistent, especially in areas important for research on water pollution and nearshore ecology. This project will study coastal circulation in two spatial scales (~5 km and ~50 km) in order to determine the space variability of the flow and its associated time scales. The researchers will deploy drifting radio buoys in the vicinity of the Coronado Islands and will track them from shore for 15 days or more in four observational programs. Current meters will provide continuous records of the speed and direction of subsurface currents between the Coronado Islands and the mainland. Additional measurements will consist of standard hydrographic and meteorological observations.

To begin 1985. EDC Jan. 1987. CONACYT.

686. Pablo R. Arenas (Southwest Fisheries Center, NOAA, P.O. Box 271, La Jolla, CA 92116)

Dynamics of Spatially Fluid and Structured Fish Populations

This doctoral research project explores the concept and implications of heterogeneous and spatially fluid fish populations and their interaction with local fisheries. An analysis of the central stock of the northern anchovy population, fished by both U.S. and Mexican boats, will provide insight into some aspects of spatial flexibility and structure of the population and the characteristics of a local fishery. This study serves as the basis for a theory of international management of shared fish populations, and it will explore a classical concept in fisheries, the stock as the basis for management. Data sources from the United States include

CalCOFI (California Cooperative Fisheries Investigations), the California Department of Fish and Game, and the Southwest Fisheries Center. Sources from Mexico include the Ensenada-based Pesquera Zapata and the INP (Instituto Nacional de Pesca) database.

Begun Feb. 1984. EDC Sept. 1985. Southwest Fisheries Center/Univ. of Washington/CONACYT.

687. ‡David W. Au (Southwest Fisheries Center, NOAA, P.O. Box 271, La Jolla, CA 92038), ‡Alfredo Salas (COPEMAPRO, Virgilio Uribe y Tte. Azueta 496-A, Ensenada 22, B.C.N.)

Ovarian Development in Billfish

These researchers are sampling billfish caught by Japanese longliners fishing off Baja California. Through an analysis of the fishes' reproductive organs consisting primarily of histologically examining their ovaries, the researchers hope to achieve a better understanding of where, when, and how often the different species spawn. The most frequently sampled species is expected to be the striped marlin.

Begun Sept. 1984. Ongoing. NMFS.

688. ‡Antoine Badan-Dangon, ‡Clinton D. Winant (Center for Coastal Studies, SIO, A-009, UCSD, La Jolla, CA 92093)

Variability of the Atmospheric Forcing over the Gulf of California, Part I

This program of meteorological observation will determine the spatial and temporal variability of the atmospheric forcing over the Gulf of California, which is the site of a number of physical oceanographic studies already underway. Part of a multinational investigation of the hydrodynamics of circulation in semi-enclosed seas, this coordinated program of atmospheric observations over the Gulf will estimate fluxes of momentum, heat, and moisture between the atmosphere and the waters of the Gulf. The research plan includes repeated overflights by an instrumented aircraft, fixed-point observations of meteorological variables, and observations from moored buoys. At present, the proposal details the measurements desired from the aircraft and the fixed meteorological stations, with the moored-buoy observations presented in a companion proposal to be submitted by Woods Hole Oceanographic Institution.

Begun July 1983. EDC June 1986. NSF.

689. ‡Lisa Ballance, ‡Bernd Wursig, Donald Croll (Moss Landing Marine Laboratories, P.O. Box 223, Moss Landing, CA 95039), ‡Lloyd T. Findley, Gisela Carvallo, Omar Vidal (Escuela de Ciencias Marítimas y Alimentarias, Instituto Tecnológico y de Estudios Superiores de Monterrey, A.P. 484, Guaymas, Son. 85400)

Studies of the Home Range of the Bottlenose Dolphin *(Tursiops)*

This study of the bottlenose dolphin in Kino Bay and Guaymas will define the home range as a localized site and in terms of the larger range of a nomadic species. It will also determine how many individuals use the defined home range and will demonstrate the degree of exclusivity of the defined range and the degree of overlap with adjacent home ranges.

Begun June 1984. Ongoing. Instituto Tecnológico y de Estudios Superiores de Monterrey/Moss Landing Marine Laboratories.

690. ‡C. Erik Baqueiro, José A. Masso, Margarita D. Muciño, Alfonso B. Vélez (Centro Regional de Investigaciones Pesqueras, INP, A.P. 468, La Paz, B.C.S. 23000)
Northern Pacific Snails and Clams

This program of studies on commercially imported shellfish will locate and evaluate commercial stocks of bivalves and gastropods, and it involves experimental research on the ecology of commercial shellfish species.

Begun Jan. 1978. Ongoing. Publications: "Population Structure of the Mangrove Cockle *Anadara tuberculosa* (Sow., 1833) from Eight Mangrove Swamps in Magdalena and Almejas Bay, Baja California Sur, México," *Proceedings of the National Shellfisheries Association* 70:2 (1980); C. E. Baqueiro, J. A. Masso, and A. Vélez B., "Crecimiento y reproducción del caracol *Hexaplex erithrostomus* de Bahía Concepción, B.C.S., México," *Ciencia Pesquera* 4 (1984):19-32; C. E. Baqueiro, "Some Considerations for the Fisheries Management of Bivalves and Gastropods," *Fisheries Research* (Elsevier), forthcoming.

691. ‡Juan Carlos Barrera, ‡Lloyd T. Findley (Escuela de Ciencias Marítimas y Alimentarias, Instituto Tecnológico y de Estudios Superiores de Monterrey, A.P. 484, Guaymas, Son. 85400), ‡Alan J. Mearns (Environmental Research Laboratories, NOAA, 7600 Sand Point Way NE, Seattle, WA 98115), John C. Harshbarger (Registry of Tumors in Lower Animals, National Museum of Natural History, Smithsonian Institution, Washington, D.C. 20560)
Melanocytic Neurofibroma in Demersal Fishes in the Gulf of California

The study explores the occurrence and distribution of a melanoma-like cancer among demersal fishes in the Gulf of California. The researchers will determine which species are affected by the disease and assess its distribution in relation to ecological and behavioral parameters.

Begun Jan. 1981. EDC Aug. 1985. Instituto Tecnológico y de Estudios Superiores de Monterrey.

692. ‡Andrew A. Benson (SIO, A-002, UCSD, La Jolla, CA 92093), ‡Raúl N. Ondarza (CIES, Carretera Panamericana y Periférico Sur, San Cristóbal de las Casas, Chis. 29290)
Evolution and Ecofunctions of Glutathione Reductase

Glutathione reductase, a key respiration enzyme of the animal red blood cell, occurs in almost all lower organisms; its oxidation state serves to regulate the redox potential of the cell and of the enzymes which function in it. This enzyme reacts with arsenic in the organism and reduces it to a lethal form. In the rat, arsenic avidly binds to vicinal hemoglobin molecules; if it should react with glutathione reductase in its arsenic-sensitive reduced state, the binding is exceptionally firm and the enzyme inactivated. These relationships provide insight into the regulation of disulfide linkages in cells and indicate avenues for the metabolism of arsenic in marine organisms, in which the hazard of arsenic uptake is ubiquitous.

Begun 1978. Ongoing. NSF/CONACYT. Publications: R. N. Ondarza, J. L. Rendón, and M. Ondarza, "Glutathione Reductate in Evolution," *Journal of Molecular Evolution* 19 (1983):371-375; F. C. Knowles and A. A. Benson, "The Biochemistry of Arsenic," *Trends in Biochemical Sciences* 8 (1983):178-180.

693. Nancy A. Bray (Center for Coastal Studies, SIO, A-009, UCSD, La Jolla, CA 92093)

Thermohaline Circulation in the Gulf of California

The Gulf of California, the only evaporative basin in the Pacific, experiences a thermohaline circulation similar in nature to that found in the Mediterranean and Red Seas. This two-year observational program to study that circulation includes six hydrographic (CTD) surveys, year-long moored current measurements, and various large-scale and local meteorological observations. This research will construct a qualitative description of the atmospheric forcing and thermohaline response of the northern Gulf of California on an annual time scale and will determine the quantitative bounds of the air-sea and oceanic fluxes of mass heat and salt which are involved.

Begun Nov. 1982. EDC Mar. 1985. NSF/ONR.

694. ‡Biliana Cicin-Sain (Dept. of Political Science, UCSB, Santa Barbara, CA 93106), Michael K. Orbach (Dept. of Anthropology, Economics and Sociology, East Carolina Univ., Greenville, NC 27834)

United States-Mexico Relations on Marine Resources: Pacific Coast Fisheries

This project describes and analyzes the political decision-making structures involved in U.S.-Mexico marine policy issues as evidenced in the interactions of the two countries with regard to marine resources on the Pacific coasts of Mexico and the U.S. The study identifies key issues involving the tuna and anchovy fisheries and explores the relationship between these issues and other bilateral issues such as energy, trade, and migration. After identifying policy agencies and networks in each country which are relevant to marine policy issues on the Pacific coast, the study has begun to document their interactions. The researchers are also analyzing the economic and social groups on both sides of the border which are involved in the use, conservation, and development of these shared resources. The research draws information from personal interviews with public officials and private sector actors in both countries.

Begun Oct. 1982. Ongoing. California Sea Grant College Program/U.S. Dept. of Commerce/State of California. Publications: *U.S.-Mexican Relations on Marine Resources: Interdependence and Competition,* forthcoming; B. Cicin-Sain, M. K. Orbach, E. Manzanilla, and S. Sellers, "Conflictual Interdependence: U.S.-Mexican Relations on Marine Resources" (Paper presented at the Binational Conference on U.S.-Mexican Relations on Marine Resources, San Diego, Calif., Sept. 15-17, 1983).

695. Gregor M. Cailliet (Moss Landing Marine Laboratories, P.O. Box 223, Moss Landing, CA 95039)
Age and Growth Patterns in Elasmobranch Fishes

This research on age and growth in elasmobranch fishes has explored age determination methods for 22 species of California and Mexican elasmobranchs and has produced growth curves for eight of them. In addition, it has included evaluations of band periodicity in the hard parts used for age determination (vertebrae), using several existing and three new age validation procedures. The work presently focuses on long-term tag-and-recapture studies, laboratory grow-out studies to validate vertebral growth bands, and the inclusion of additional species in Mexico and Hawaii, as well as studies of the same species in those areas. The researcher has also conducted related investigations on the age and growth of blue marlin from Hawaii. This research has stimulated interest in similar processes in marlin common to Mexican waters, primarily the striped marlin. The research currently points toward tag-and-recapture studies of striped marlin in Mexican waters.

Begun 1978. Ongoing. California Sea Grant College Program. Publications: G. M. Cailliet and D. Bedford, "The Biology of Three Pelagic Sharks from California Waters and Their Emerging Fisheries: A Review," *CalCOFI Reports* 24 (1983):57-69; G. M. Cailliet, L. K. Martin, D. Kusher, P. Wolf, and B. A. Welden, "Techniques for Enhancing Vertebral Bands in Age Estimation of California Elasmobranchs," in *International Workshop on Age Determination of Oceanic Pelagic Fishes: Tunas, Billfishes, and Sharks,* eds. E. D. Prince and L. M. Pulos, NOAA Technical Report NMFS 8 (1983):157-165; G. M. Cailliet, L. K. Martin, J. T. Harvey, D. Kusher, and B. A. Welden, "Preliminary Studies on the Age and Growth of Blue *(Prionace glauca),* Common Thresher *(Alopias vulpinus),* and Shortfin Mako *(Isurus oxyrinchus)* Sharks from California Waters," in *Proceedings of the International Workshop on Age Determination of Oceanic Pelagic Fishes: Tunas, Billfishes, and Sharks,* eds. E. D. Prince and L. M. Pulos, NOAA Technical Report NMFS 8 (1983):179-188.

696. ‡Félix Córdoba Alva, Víctor Ramírez Angulo (Dpto. de Biología Experimental y Aplicada, Centro de Investigaciones Biológicas de Baja California Sur, A.P. 128, La Paz, B.C.S. 23000)
Marine Immunotaxonomy

With the goal of establishing immunochemical methods for identifying and estimating some invertebrates, these researchers are presently attempting to discover poly- and monoclovalent antibodies and to purify antiserums so as to avoid cross-reactions. Their work focuses on the sea urchins *D. mexicanum, C. coronatus, E. vanbrunti,* and *E. thousarsii.*

Begun 1983. EDC indefinite. SPP. Publication: F. Córdoba, V. Ramírez, S. Real, and F. X. Arredondo, "Molecular Identification of Sea Urchins," in *IX Reunión CIBCASIO* (La Paz, B.C.S.: CIBCASIO, 1984).

697. ‡John W. Day (Center for Wetland Resources, Louisiana State Univ., Baton Rouge, LA 70803), ‡Francisco Javier Flores Verdugo (Estación Mazatlán del Instituto de Ciencias del Mar y Limnología, UNAM, A.P. 811, Mazatlán, Sin. 82000)
The Contribution of Organic Material to Primary Producers in an Ephemeral-mouthed Lagoon-Estuary Ecosystem

The abundance of fish in coastal lagoons is due largely to high primary production within the system, including mangrove swamps, swamp grass, macroalgae, and phytoplankton. This study quantified the contribution of organic materials to the major primary producers, measured the amount of organic material transferred to adjacent coastal zones, and described the mechanisms for the distribution of detritus in coastal lagoons with ephemeral mouths. The study also attempted to determine the role of flood plains as subsidiary sources of energy for these lagoons (through the deposit of *Salicornia sp.* and *Batis maritima,* which colonize these areas in dry periods).

Begun Jan. 1979. Completed 1984. UNAM. Publications: "Aporte de materia orgánica por los manglares *(Laguncularia racemosa)* a un ecosistema lagunar-estuarino de boca efímera ('El Verde') al sur de Sinaloa, México"; "Productividad primaria del fitoplancton y el pasto marino *(Ruppia maritima)* en un ecosistema lagunar-estuarino de boca efímera en Sinaloa, México"; "Transportes de materia orgánica, nutrientes y clorofilas entre una laguna costera de boca efímera y la zona costera adyacente al sur de Sinaloa, México."

698. ‡John W. Day (Center for Wetland Resources, Louisiana State Univ., Baton Rouge, LA 70803), ‡Francisco J. Flores Verdugo, ‡Fernando A. González Farías, ‡Michel E. Hendrickx, ‡Alejandro Yáñez Arancibia, Felipe Amezcua Linares, Mario Gutiérrez Estrada (Estación Mazatlán del Instituto de Ciencias del Mar y Limnología, UNAM, A.P. 811, Mazatlán, Sin. 82000)
Mangrove Swamp Management in Nayarit

The Teacapan, Agua Brava, and Marismas Nacionales ecosystems comprise a 1000-square-kilometer mangrove swamp, the largest on Mexico's Pacific coast, and probably the largest in all the Americas. The adequate management of such an ecosystem depends on a thorough understanding, from the trophodynamic point of view and others, of its most conspicuous members. This research works toward that end by quantifying the primary productivity of mangroves, phytoplankton, and seagrasses; by measuring available carbon sources and those exported to adjacent coastal areas, as well as the energy consumed by the system; and by describing the community of the megabenthos, the structure and function of the fish community, and the geological processes that occur in an artificial channel.

Begun Nov. 1984. EDC Mar. 1986. UNAM/CONACYT.

699. ‡Horacio De Anda (Escuela de Ciencias Marinas, UABC-Ensenada, A.P. 453, Ensenada, B.C.N.), ‡Mark S. Lowry (Southwest Fisheries Center, NOAA, P.O. Box 271, La Jolla, CA 92138)
The Food Habits of California Sea Lions
***(Zalophus californianus)* at Islas Los Coronados**

This study of the food habits of California sea lions *(Zalophus californianus)* at Islas Los Coronados will determine the species composition and seasonal variation in their diet; compare their prey from Islas Los Coronados with those from other islands in the Southern California Bight; compare their diet in years of an occurrence of El Niño with years in which the El Niño event does not occur; relate the food habits of sea lions to the availability of prey; and determine whether a significant amount of exchange occurs between the Mexican and U.S. sea lion populations. The study utilizes fish otoliths and cephalopod beaks recovered from sea lion scats (which are sampled at approximately two-month intervals) to identify and quantify prey composition. Exchange between the Mexico and U.S. sea lion populations will be determined by identifying animals at Islas Los Coronados which were tagged at islands in the U.S.

Begun Nov. 1983. Ongoing. NMFS/Escuela de Ciencias Marinas.

700. ‡Rosalba D. Encarnación, Murillo R. Fort (Dpto. de Biología Marina, UABCS, A.P. 219, La Paz, B.C.S. 23000)
Pharmacognostic Investigation on Natural Products
from *Baja California Sur*

This research on medicinal plants and marine natural resources from Baja California Sur involves chemical and pharmacological screening of extracts from selected plants reported in traditional medicine and from marine organisms. The researchers will isolate the active components of these extracts, determine their chemical structure, and purify the promising components for biological testing.

Begun Jan. 1984. EDC indefinite. SEP. Publication: "Pharmacognostic Selection of Natural Products from B.C.S." (Paper presented at the XI International Symposium on Chemistry of Natural Products, Monterrey, N.L., Apr. 1984).

701. ‡Lloyd T. Findley (Escuela de Ciencias Marítimas y Alimentarias, Instituto Tecnológico y de Estudios Superiores de Monterrey, A.P. 484, Guaymas, Son. 85400), ‡Philip A. Hastings (Dept. of Ecology and Evolutionary Biology, Univ. of Arizona, Tucson, AZ 85721)
Seven-spined Gobiid Fishes in the Eastern Pacific

Diagnoses, descriptions, relationships, and the zoogeography of seven-spined gobiid fishes, especially the genera *Chriolepis* and *Pychnomma*, comprise the focus of this study.

Begun Jan. 1981. Ongoing. Univ. of Arizona/Instituto Tecnológico y de Estudios Superiores de Monterrey.

702. ‡Lloyd T. Findley, Alberto Martínez (Escuela de Ciencias Marítimas y Alimentarias, Instituto Tecnológico y de Estudios Superiores de Monterrey, A.P. 484, Guaymas, Son. 85400), ‡Dane F. Mason, ‡Bernd Wursig (Moss Landing Marine Laboratories, P.O. Box 223, Moss Landing, CA 95039)
Feeding, Schooling, and Migrational Behavior of the Common Dolphin *(Delphinus delphis)*

Focusing on common dolphins in the Midriff Islands region of the Gulf of California, this study of *Delphinus delphis* examines items in its diet and its feeding behavior; attempts to determine its diurnal and/or seasonal home ranges, or to show that its populations are nomadic; describes its schooling behaviors during different activity cycles; and explores differences in these behaviors between neritic and pelagic populations.

Begun Aug. 1983. Completed 1984. Instituto Tecnológico y de Estudios Superiores de Monterrey/American Cetacean Society-San Diego Chapter.

703. ‡Lloyd T. Findley, ‡Omar Vidal (Escuela de Ciencias Marítimas y Alimentarias, Instituto Tecnológico y de Estudios Superiores de Monterrey, A.P. 484, Guaymas, Son. 85400)
Gray Whales in the Gulf of California

This history of the distribution of gray whales *(Eschrichtius robustus)* in the Gulf of California includes a review of all reported sightings and strandings, both recent and historical, in the Gulf. These records indicate an abnormally wide seasonal distribution of the species along the entire lengths of both coasts of the Gulf. The study emphasizes the Gulf's two principal calving areas (near Yavaros, Sonora, and the Bahía Santa María, Sinaloa), where the number of individuals has apparently decreased in recent years. New sightings of cow-calf pairs in or near other bays in this region, outside the "normal" seasonal distribution of the species, suggest that at least some calves born in these waters remain there for one or more years; the observed phenomena also raise the possibility that other age classes of this part of the northeastern Pacific population of gray whales do not participate in the well-known seasonal migration to boreal waters.

Begun Feb. 1979. Ongoing. Instituto Tecnológico y de Estudios Superiores de Monterrey/American Cetacean Society-San Diego Chapter.

704. ‡Lloyd T. Findley, ‡Omar Vidal, Gisela Garvallo (Escuela de Ciencias Marítimas y Alimentarias, Instituto Tecnológico y de Estudios Superiores de Monterrey, A.P. 484, Guaymas, Son. 85400), ‡Anelio Aguayo Lobo, Lorenzo Rojas (Laboratorio de Vertebrados, Facultad de Ciencias, UNAM, C.U., México, D.F. 04510), Bruce Mate (Marine Science Center, Oregon State Univ., 2030 Marine Science Dr., Newport, OR 97365)

Fin Whales in the Gulf of California

This study will estimate the size of the stock population and determine the distribution and migrational pattern of fin whales *(Balaenoptera physalus)* in the Gulf of California.

Begun Jan. 1980. Ongoing. Instituto Tecnológico y de Estudios Superiores de Monterrey.

705. ‡John Grant, Herb Frey (California Dept. of Fish and Game, 245 W. Broadway, Long Beach, CA 90802), Reuben Lasker (Southwest Fisheries Center, NOAA, P.O. Box 271, La Jolla, CA 92093), Jorge Carranza Fraser (INP, Londres 259, Col. Juárez, México, D.F. 06700)

Studies of the Oceanic Fisheries of the Californias

This project, called California Cooperative Oceanic Fisheries Investigations (CalCOFI), involves studies of the fisheries of the California Current. The member institutions are the Marine Life Research Group, Scripps Institution of Oceanography; the California Department of Fish and Game; and the Southwest Fisheries Center, National Marine Fisheries Service, National Oceanic and Atmospheric Administration. Data, reports, and cruises are shared with personnel of the Instituto Nacional de Pesca, Secretaría de Pesca, and with other marine science institutions in Mexico. The annual CalCOFI meeting is a bilingual, three-day meeting with simultaneous translation provided. The *CalCOFI Reports,* a peer-reviewed, scientific publication, accepts manuscripts in both English and Spanish and supplies an abstract in the alternative language.

Begun 1948. Ongoing. State of California. Publications: Data Reports in the SIO Technical Series; CalCOFI Atlas Series; CalCOFI Reports Series.

706. ‡George T. Hemingway, Ruth A. Dougherty (SIO, A-027, UCSD, La Jolla, CA 92093)
Inter-Americas Program Office:
Scripps Institution of Oceanography

This program involves educational and technological exchange with Mexican marine science institutions; small methodology exchange and standardization of techniques; sharing at-sea experiences; bibliographic assistance to marine science libraries; short courses; curriculum enrichment; faculty development; curriculum planning; visiting lecturer series; and liaison functions. All these activities are related to the broad scientific area included in marine sciences. The program seeks to raise Latin American marine sciences research and education to parity with that of the U.S. by promoting communication, joint research planning and execution, common methods and terms, and higher levels of awareness.

Begun 1970. EDC Aug. 1985. NOAA/Sea Grant International Program/Tinker Foundation.

707. Myrl C. Hendershott (SIO, A-030, UCSD, La Jolla, CA 92093)
Fine-Structure Generation and Decay
in the Gulf of California

Rapid tidal flows (of 7-8 knots) over the sills of Ballenas Channel, a channel between Baja California Peninsula and Angel de la Guarda Island with shallow (300-meter) sills at either end, are very likely to generate fine structure in temperature and salinity. Because the most rapid flows are localized (occurring in the channel and over the sills) and because they vary strongly over both a tidal period and the spring-neap interval, this long, deep, narrow channel provides an ideal location in which to study how rapidly fine structure decays after generation, and how rapidly fine structure decays away from the region of generation. This study, carried out with the assistance of researchers from CICESE, has demonstrated clearly that fine structure in temperature is more intense at springs than at neaps, and more intense near the sills than in the interior of Guaymas Basin, 100 kilometers to the south. At springs near the sills, layers of the water column hundreds of meters below the surface and as much as 200 meters thick are filled with overturns many tens of meters in thickness.

Begun Feb. 1983. Completed 1984. ONR.

708. ‡Michel E. Hendrickx, José Alvarez Cadena, Alberto Castro del Río, Roberto Cortés Altamirano, Francisco Javier Flores Verdugo, Fernando A. González Farías, Mario Gutiérrez Estrada, Arturo Toledano Granados, Albert M. Van Der Heiden (Estación Mazatlán del Instituto de Ciencias del Mar y Limnología, UNAM, A.P. 811, Mazatlán, Sin. 82000), Anelio Aguayo Lobo (Facultad de Ciencias, UNAM, C.U., México, D.F. 04510), María Elena Caso Muñoz, María Nuria Méndez Ubach, Vivián Solís Weiss (Instituto de Ciencias del Mar y Limnología, UNAM, A.P. 70-305, México, D.F. 04510)
Benthic Fauna of the Continental Shelf
of the Gulf of California

This study of the benthic fauna of the continental platform of the Gulf of California includes a complete inventory of benthic macroinvertebrates and demersal fishes and studies of sediments and the plankton community. Field work includes three cruises (one each in May 1982, August 1984, and January 1985) and sampling from 67 stations, of which 39 collect benthos and 51 sample plankton. The research will relate this up-to-date inventory of the fauna and its distribution to the fishing potential in the area and will examine zoogeographical issues, especially those dealing with decapod crustaceans. The study will also establish an up-to-date balance of commercial to non-commercial species in the area, provide identification keys for all species, and build a reliable reference collection about the area.

Begun Apr. 1982. EDC Dec. 1986. UNAM/CONACYT. Publications: M. E. Hendrickx, "Distribution and Abundance of *Sicyonia penicillata* Lockington, 1879 in the Gulf of California, with Some Notes on Its Biology," *Fishery Bulletin* 82:4 (1984); M. E. Hendrickx, "The Species of *Sicyonia* H. Milne Edwards *(Crustacea: Penaeidea)* of the Gulf of California, Mexico with a Key for Their Identification and a Note on Their Zoogeography," submitted.

709. ‡Michel E. Hendrickx, Arturo Toledano Granados, Albert M. Van Der Heiden (Estación Mazatlán del Instituto de Ciencias del Mar y Limnología, UNAM, A.P. 811, Mazatlán, Sin. 82000)

Marine and Coastal Fauna in the Southern Gulf of California

This general survey of the invertebrates and fishes of the southern Gulf of California will include an inventory of species, identification keys, and an ecological study oriented towards the community structure of the ecosystems occurring in the area: coastal lagoons, estuaries, sandy and rocky beaches, shallow bays, and the continental platform. The project, initiated in the southern Sinaloa area and since 1981 including the southeastern Gulf (Guaymas to Punta Mita), is based on intensive sampling by small boats, shrimp trawlers, and the research vessel "El Puma" of the UNAM SIPCO Project. The study, which emphasizes its regional dimensions, focuses on three goals: defining the distribution and abundance of species according to depth, temperature, and dissolved oxygen; providing a series of publications dealing with taxonomy and general ecology of the groups of species; and building a reliable reference collection of the area's marine invertebrates, as well as a complete checklist of species.

Begun Jan. 1979. EDC Dec. 1986. UNAM. Publications: M. E. Hendrickx, M. K. Wicksten, and A. M. Van Der Heiden, "Studies of the Coastal Marine Fauna of Southern Sinaloa, Mexico, IV: Report on the Caridean Crustaceans," in *Proceedings of the Biological Society of Washington* 96:1 (1983):67-78; M. E. Hendrickx, "Studies of the Coastal Marine Fauna of Southern Sinaloa, Mexico, II: The Decapod Crustaceans of Estero El Verde," *Anales del Instituto de Ciencias del Mar y Limnología*, forthcoming; M.E. Hendrickx, A. M. Van Der Heiden, and A. Toledano

Granados, "Resultados de las campañas SIPCO (Sur de Sinaloa, México) a bordo del B/O "El Puma": hidrología y composición de las capturas efectuadas en los arrastres," *Anales del Instituto de Ciencias del Mar y Limnología*, forthcoming.

710. ‡A. Peter Klimley (SIO, A-002, UCSD, La Jolla, CA 92093), Felipe Galván Magaña (Centro Interdisciplinario de Ciencias Marinas, Instituto Politécnico Nacional, A.P. 476, La Paz, B.C.S.)
Behavior of the Scalloped Hammerhead Shark,
Sphyrna lewini

This study has involved the *in situ* description of the ethology and behavioral ecology of schooling scalloped hammerhead sharks *(Sphyrna lewini)* which aggregate adjacent to offshore seamounts and islands in the Gulf of California. The study describes the size and sex composition of the schools using stereophotography; identifies the biological correlates of schooling behavior (i.e., internal reproductive state and feeding habits); describes behavioral patterns and their sequences using video techniques; and examines day-night movement patterns using ultrasonic telemetry. Such information is presently leading to a description of the unexpectedly diverse repertoire of social behaviors in this species and an understanding of the causation of its schooling. In future studies, the researcher will attempt to determine what cues are used by the hammerheads to home to the seamount. The researchers will experimentally manipulate potential cues such as sound and geoelectric fields and use ultrasonic telemetry to monitor the homing hammerheads' responses to these manipulations.

Begun Sept. 1977. Ongoing. ONR/National Geographic Society/Foundation for Ocean Research. Publications: A.P. Klimley and D. R. Nelson, "Diel Movement Patterns of the Scalloped Hammerhead Shark *(Sphyrna lewini)* in Relation to El Bajo Espíritu Santo: A Refuging Central-Position System," *Behavioral Ecology and Sociobiology*, forthcoming; A.P. Klimley and S. T. Brown, "Stereophotography for the Field Biologist: Measurement of Lengths and Three-dimensional Positions of Free-swimming Sharks," *Marine Biology* 74:2 (1983):175-183; A. P. Klimley and S. T. Brown, "A Stereophotographic Technique for the Determination of the Lengths of Free-swimming Sharks," *CIBCASIO Transactions* 11 (1982):110-134.

711. Kenneth F. Mais (California Dept. of Fish and Game, 245 W. Broadway, Suite 350, Long Beach, CA 90802)
Assessment of Commercial Fisheries Resources

This project involves annual sea survey cruises to estimate the biomass and recruitment success of the northern anchovy population of northern Baja California and Southern California. A 20-day fall survey cruise using a midwater trawl in shallow coastal waters assesses anchovy spawn success through quantitative sampling of young anchovies. A 30-day winter cruise using sonar and a midwater trawl covers both inshore and offshore areas to estimate the anchovy biomass and its age composition. Both surveys incidentally produce rough measures of relative abundances of Pacific mackerel, Jack mackerel, and Pacific sardines.

Begun 1950. Ongoing. California Dept. of Fish and Game/U.S. federal government. Publications: *California Cooperative Fisheries Investigations Data Report* 1-33 (1950-1983); K. F. Mais, "Pelagic Fish Surveys in the California Current," *Fish Bulletin* 162 (1974).

712. ‡Hugo Gustavo Peña, ‡Cuauhtemoc Nava (Dpto. de Oceanografía Física, CICESE, Av. Espinoza 843, Ensenada, B.C.N. 22830)

The Coastal Dynamic of Bahía de Todos Santos

This characterization of the coastal-zone dynamic of Baja California's Bahía de Todos Santos employs observation, analysis, and mathematical modeling of the many physical variables involved: wave patterns, tides, littoral currents, sediment movement, shorelines, etc. Computer programs analyze and evaluate the data collected on these variables by pressure sensors and current gauges.

Begun Jan. 1983. Ongoing. SPP. Publications: H. G. Peña, "On the Stability of the Moments of the Maximum Entropy Wind-Wave Spectrum," *Ocean Engineering* 10:2 (1983):79-96; R. O. Plaisted and H. G. Peña, "Higher-Order Auto Spectra by Maximum Entropy Method," *Geophysics* 48:10 (1983):1409; H. G. Peña and R. Montes, "Distribución estadística de la pendiente de la ola," *Revista de Ciencias Marinas* 9:1 (1983):99-109.

713. ‡Federico Páez Osuna, Laurence D. Mee-Miller (Estación Mazatlán del Instituto de Ciencias del Mar y Limnología, UNAM, A.P. 811, Mazatlán, Sin. 82000)

The Geochemistry of Sediments off Mexico's Pacific Coast: The Gulf of California

This geochemical and mineralogical survey of the Mexican Pacific sea bed seeks to identify types of metalliferous deposits, levels and distribution of minerals, and the mechanisms by which recent deposits were formed. The researchers designed a nucleator and several extractors for the on-board collection of samples from interstitial waters. Samples are analyzed in the laboratory for certain water-borne heavy metals — HCO_3, SO_4, Cl — and nutrients; the mineral makeup of sediments; heavy metals with selective effects; and organic materials. The information collected will be compared with parallel information available on other sites, including additional data on the Gulf of California.

Begun June 1983. Ongoing. UNAM. Publication: F. Páez Osuna, J. I. Osuna López, L. D. Mee-Miller, and M. I. Abdullah, "Modificación a un nucleador ligero y económico para muestrear sedimentos sin disturbarlos: nota científica," *Anales del Instituto de Ciencias del Mar y Limnología*, forthcoming.

714. Edward J. Pfeiler (Escuela de Ciencias Marítimas y Alimentarias, Instituto Tecnológico y de Estudios Superiores de Monterrey, A.P. 484, Guaymas, Son. 85400)
Larval Development in the Bonefish *(Albula)*

This research focuses on the biochemical and physiological changes associated with the early development and metamorphosis of leptocephalous larvae of the bonefish *(Albula)*. The study gives special attention to the nutritional aspects of development, since metamorphosing larvae do not feed and premetamorphic larvae lack identifiable food material in the digestive system. Since leptocephali lose most of their body water and salt during metamorphosis, the researcher is also attempting to identify the factors controlling these losses. The research centers on changes in biochemical composition during development, as well as on the isolation, purification, and identification of lipid, protein, and carbohydrate components. Because the pattern of larval development is similar in many different species having a leptocephalous larval stage (e.g., the true eels), the results of this research may have applications in understanding development in these other groups as well.

Begun Feb. 1978. Ongoing. Publications: "Glycosaminoglycan Breakdown during Metamorphosis of Larval Bonefish *(Albula)*," *Marine Biology Letters*, forthcoming; E. Pfeiler and A. Luna, "Changes in Biochemical Composition and Energy Utilization during Metamorphosis of Leptocephalous Larvae of the Bonefish *(Albula)*," *Environmental Biology of Fishes* 10 (1984):243-251.

715. James L. Squire (Southwest Fisheries Center, NOAA, P.O. Box 271, La Jolla, CA 92038)
Cooperative Marine Game-Fish Tagging Program

This research attempts to determine the oceanic migration patterns of billfishes in the Pacific Ocean through cooperative tagging by marine game fishermen. It involves tagging of sailfish and striped, blue, and black marlin in the waters off Mexico, Central America, Hawaii, and New Zealand.

Begun 1963. Ongoing. NOAA-NMFS. Publication: "Migration Patterns of *Istiophoridae* in the Pacific Ocean as Determined by Cooperative Tagging Programs," in *Proceedings of the International Billfish Symposium*, NOAA Technical Report, NMFS SSRF 675 (Washington, D.C.: NOAA, 1974).

716. James L. Squire (Southwest Fisheries Center, NOAA, P.O. Box 271, La Jolla, CA 92038)
Pacific International Billfish Survey

This research employs an annual postcard survey to determine catch rate trends for billfish species (striped, blue, and black marlin; sailfish; and shortbilled spearfish) in major fishing areas of the Pacific Ocean.

The sampled areas in Mexico include Baja California Sur, the Gulf of California, Mazatlán, San Blas, Puerto Vallarta, Manzanillo, and Acapulco.

Begun 1969. Ongoing. NOAA-NMFS. Publication: "Angler Catch Rates of Billfish in the Pacific Ocean," in *Proceedings of the International Billfish Symposium*, NOAA Technical Report, NMFS SSRF 675 (Washington, D.C.: NOAA, 1974).

717. Steve Strand (Dept. of Biology, UCLA, 405 Hilgard Ave., Los Angeles, CA 90024)
Community Ecology of Reef Fish in the Gulf of California

This project examines the interactions and ecology of fishes associated with reefs in Baja California.

Begun June 1974. Ongoing.

718. Jorge A. Vargas (Mexico-U.S. Law Institute, Guadalupe Hall, Rm. 201, USD, San Diego, CA 92110)
Marine Scientific Research in the Gulf of California: Policy and Law

This research will culminate in the convening of a conference to identify and analyze the most important binational marine scientific programs focusing on the Gulf of California. This administrative, legal, and economic analysis of the programs will focus on Mexico's plan for the Sea of Cortez and prospects for future marine scientific research in the area. An edited version of the conference proceedings will be published.

To begin Sept. 1985. EDC 1985.

719. ‡Peter M. Williams, Angelo F. Carlucci (Institute of Marine Resources, SIO, A-018, UCSD, La Jolla, CA 92093)
Chemistry and Microbiology of Natural Films on the Sea Surface

This research on marine surface films focused on their organic and inorganic chemical composition; their microbial populations (phytoplankton, bacteria, other nannoplankton) and microbial transformations of organic matter; the formation and degradation rates of surface films; and the pressure and surface potential of surface films and the corresponding 10-centimeter subsurface waters of both coastal and open-ocean locations in the Gulf of California and off the west coast of Baja California. The researchers related these data to biological production in these coastal and offshore waters, as well as to the exchange of chemicals, heat, water vapor, and momentum between the sea surface and the atmosphere.

Begun Feb. 1978. Completed 1984. NSF. Publications: P. M. Williams, S. Van Vleet, and C. R. Booth, "*In Situ* Measurements of Sea-Surface Film Potentials," *Journal of Marine Research* 38 (1980):193-204; S. G. Horrigan, A. F. Carlucci, and P. M. Williams, "Light Inhibition of Nitrification in

Sea-Surface Films," *Journal of Marine Research* 39 (1981):557-565; E. S. Van Vleet and P. M. Williams, "Surface Potential and Film Pressure Measurements in Seawater Systems," *Limnology and Oceanography* 28 (1983):401-414.

720. Clinton D. Winant (Center for Coastal Studies, SIO, A-009, UCSD, La Jolla, CA 92093)

Temporal and Spatial Scales of Circulation in the Gulf of California

This research involves a two-year program of observation, description, and interpretation of the current field and other important physical parameters in a section across the Gulf of California between Bahía Concepción on the Baja California side and Punta Lobos on the coast of mainland Mexico. The research will first answer the question of whether the circulation in a section across this sea is coherent or whether unrelated motions take place on either shelf. Moored *in situ* instruments will be used to observe the vertical and cross-shelf structure of the currents and temperature, the cross-shelf structure of bottom pressure, and surface winds. These descriptions will form the basis of simple estimates of the mass, momentum, and thermal wind budgets at the section.

Begun Feb. 1982. EDC Sept. 1985. ONR.

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PHYSICAL SCIENCES

721. ‡John G. Anderson, ‡James N. Brune (Institute of Geophysics and Planetary Physics, SIO, A-025, UCSD, La Jolla, CA 92093), ‡J. Enrique Luco (Dept. of Applied Mechanics and Engineering Sciences, B-010, UCSD, La Jolla, CA 92093)
Strong-Motion Array along the Mexican Subduction Thrust

The researchers have planned a joint research project with the Instituto de Ingeniería, UNAM for the purpose of installing and maintaining a network of strong-motion accelerographs. The project involves deploying these accelerographs along the Pacific coast of Mexico where the Cocos Plate underthrusts the North American Plate at a rate of about 6 to 8 centimeters per year. The instruments will record the strong earthquake ground motions which inevitably result from these geologic forces. The organizers will deploy the accelerographs as a semi-permanent array, with the greatest numbers located in those regions where seismic gaps imply the greatest probability of recording a major earthquake. At present, those gaps occur within Guerrero and Michoacán. The region's high seismicity makes it one of the most promising in the world for installation of an accelerograph network. Researchers Gutenburg and Richter reported in 1954 that the region has the highest seismicity in the Western Hemisphere for shallow earthquakes, a finding confirmed by subsequent studies of the region's seismic history. Thus, the chance of obtaining records which advance understanding of earthquake sources and ground motions is excellent.

Begun June 1983. EDC Nov. 1985. Civil and Environmental Engineering, NSF.

722. ‡James N. Brune, John G. Anderson (Institute of Geophysics and Planetary Physics, SIO, A-025, UCSD, La Jolla, CA 92093), J. Enrique Luco (Dept. of Applied Mechanics and Engineering Sciences, B-010, UCSD, La Jolla, CA 92093)
Numerical and Experimental Study of Earthquakes and Earthquake Strong Motion (Earthquake Engineering)

For this joint research project which studies strong earthquake motions, the Institute of Geophysics and Planetary Physics of UCSD and the Instituto de Ingeniería (UNAM) maintain a network of digital and analog strong-motion accelerographs in northern Baja California and northwestern Sonora, with the purpose of recording strong earthquake ground motions, which will inevitably occur on the active margin between the Pacific Plate and the North American Plate. Furthermore, the project

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is carrying out detailed studies of strong-motion records which have been obtained from these and other accelerographs. Important earthquakes which have affected the region now under study include the 1956 San Miguel events, the 1978 swarm near Oaxaca, the 1979 Imperial Valley and 1980 Mexicali Valley events, and others. These detailed studies will help to determine earthquake source, to show how earthquake source and the earth's structure affect strong ground motion, and to translate the results into a form which is useful for earthquake-resistant design of structures.

Begun Mar. 1975. Ongoing. NSF. Publications: J. G. Anderson, J.N. Brune, J. Prince, and F. Vernon, "Preliminary Report on the Use of Digital Strong-Motion Recorders in the Mexicali Valley, Baja California," *Bulletin of the Seismological Society of America* 73 (1983):1451-1468; L. Mungula and J. N. Brune, "Local Magnitude and Sediment Amplification Observations from Earthquakes in the Northern Baja California-Southern California Region," *Bulletin of the Seismological Society of America* 74 (1984):107-120; J. G. Anderson, "The September 4, 1981 Santa Barbara Island, California Earthquake: Interpretation of Strong Motion Data," *Bulletin of the Seismological Society of America* 74 (1984):995-1010.

723. ‡James N. Brune, ‡T. Guy Masters (Institute of Geophysics and Planetary Physics, SIO, A-025, UCSD, La Jolla, CA 92093), ‡Keith F. Priestley (Dept. of Geophysics, Mackay School of Mines, Univ. of Nevada, Reno, NV 89557)

Long-Period Seismograph Array for Crust and Mantle Studies in Mexico

This joint research examines the crust and upper mantle of northern Mexico. The Institute of Geophysics and Planetary Physics and the Instituto de Investigaciones de Matemáticas Aplicadas y Sistemas (UNAM) have installed and continue to maintain and upgrade a long-period seismic recording network in northern Mexico. Data obtained from this network are being used with existing data from the Worldwide Standardized Seismograph Network and Seismic Research Observatories networks in the inference of earth structure in northern Mexico. The study includes computation of synthetic seismograms and analysis of dispersion, which makes possible an examination of propagation effects through the crust and upper mantle in this region. The researchers are currently conducting such data processing as well as developing digital seismic recorders for installation as part of the Mexican long-period array.

Begun Dec. 1981. Ongoing. NSF.

724. ‡Donald M. Burt, ‡Michael F. Sheridan (Dept. of Geology, Arizona State Univ., Tempe, AZ 85287)

Relation of Topaz Rhyolite Lavas to Molybdenum-Tungsten Mineralization in Mexico

This research involves field, laboratory, and literature surveys of flourine-rich (topaz-bearing) volcanic lava flows and domes in north-central Mexico to determine their possible relation to molybdenum, tungsten, and tin mineralization. Undertaken in cooperation with the Consejo de Recursos Minerales of Mexico, the project also involves personnel of the Universities of Guanajuato and San Luis Potosí.

Begun July 1983. EDC June 1985. NSF.

725. ‡Paul E. Damon, Peter Coney, M. Shafiqullah (Geosciences Dept., Geology Bldg., Rm. 232A-D, Univ. of Arizona, Tucson, AZ 85721)
Geochronologic Studies of the Igneous Rocks and Ore Deposits of Mexico

The goals of this project are to date and define the Mesozoic-Cenozoic volcanic arcs, ore deposits, and metallogenetic provinces of Mexico. Current work includes studies by the researchers, and colleagues and students in Chihuahua, Sonora, Jalisco, Guerrero, Oaxaca, and Chiapas. Current emphasis is concentrated on defining the rate of movement of the Chortis block along the coast of paleo-Mexico; on the Sonoran batholith and the Jurassic arc of Mexico; and on the junction between the Sierra Madre Occidental and the Eje Neovolcánico.

Begun Jan. 1974. Ongoing. Publications: P. E. Damon, M. Shafiqullah, and K. F. Clark, "Geochronology of the Porphyry Copper Deposits and Related Mineralization of Mexico," *Canadian Journal of Earth Sciences* 20 (1983):1052-1071; P. E. Damon, M. Shafiqullah, J. Roldán-Quintana, and J. J. Cocheme, "El batolito laramide (90-40 m.y.a.) de Sonora," in *Asociación de Ingenieros de Minas, Metalurgistas y Geólogos de México, XVI Convención,* forthcoming; M. Shafiqullah, P. E. Damon, and K. F. Clark, "K-Ar Chronology of Mesozoic-Cenozoic Continental Magmatic Arcs and Related Mineralization in Chihuahua," in *The El Paso Geological Society Guidebook for 1983 Field Conference,* pp. 303-315.

726. ‡Norman Goldstein, ‡Marcelo J. Lippmann (Earth Sciences Division, Lawrence Berkeley Laboratory, Berkeley, CA 94720), ‡Thomas McEvilly (Dept. of Geology and Geophysics, UCB, Berkeley, CA 94720), ‡Alfred Truesdell (USGS, Menlo Park, CA 94025), ‡Paul Witherspoon (Material Sciences and Mineral Engineering, UCB, Berkeley, CA 94720) et al.
Mexican-American Cooperative Program in Geothermal Energy

Under a three-year agreement, the U.S. Department of Energy (DOE) and the Comisión Federal de Electricidad de México (CFE) will cooperate to develop a thorough understanding of porous and fractured geothermal reservoirs. The investigation will focus on how best to locate and exploit geothermal resources, and it will facilitate the exchange of information on geothermal topics of mutual interest. The study will especially emphasize the study of geothermal fields at Cerro Prieto, Baja California and Los Azufres, Michoacán. This project continues and expands a previous DOE-CFE study carried out at Cerro Prieto between 1977 and 1982.

Begun Nov. 1984. EDC Nov. 1987. DOE. Publications: M. J. Lippmann, "Cerro Prieto Geothermal Field Proceedings of the Third and Fourth Symposia: Selected Papers," *Geothermics* 13:1-2 (1984); M J. Lippmann et al., "Exploration and Development of the Cerro Prieto Geothermal Field," *Journal of Petroleum Technology* 36:19 (1984); "Cerro Prieto Session," *Geothermal Resources Council Transactions* 8 (1984).

727. ‡Ernesto Jáuregui, Francisco Cruz (Instituto de Geografía, UNAM, C.U., México, D.F. 04510)
Climate in Mexicali

Using climatic data from urban and rural weather stations, this project identifies the principal characteristics of Mexicali's climate: temperature range, humidity, wind factors, etc. The researchers also use car-mounted instruments for collecting data from various areas of the city.

Begun Jan. 1984. Completed 1984. UNAM. Publications: "Clima de difusión atmosférica de Tijuana, B.C.," *Boletín del Instituto de Geografía de la UNAM* 11; "La calidad del aire en Monterrey," forthcoming.

728. Alfonso Romo de Vivar (Instituto de Química, UNAM, C.U., México, D.F. 04510)
Tetracyclic Triterpenes from *Parthenium*

This project has identified the secondary metabolites within various species of *Parthenichaeta* as tetracyclic triterpenes with lanostane and cycloartane skeletons. The researchers isolated and purified these metabolites, then subjected them to chemical analysis, spectrography, crystallography, and radiology in order to determine the structure of the new compounds.

Begun 1981. Completed 1984. UNAM. Publications: "Tetracyclic triterpenes from *Parthenium fruticosum*," *Phytochemistry*, forthcoming; "Tetracyclic triterpenes from *P. incanum.*," submitted.

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